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Province of Nova Scotia

**Department of Public
Works and Mines**

**Annual Report of
the Mines
1914**



Printed by order of the Legislature.

HALIFAX, N. S.

Commissioner Public Works and Mines

King's Printer.

1915

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Province of Nova Scotia

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Works and Mines

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DEPARTMENT OF PUBLIC WORKS AND MINES

REPORT OF THE MINES, 1914.

*To His Honour, The Hon. James D. McGregor,
Lieutenant-Governor of Nova Scotia:—*

MAY IT PLEASE YOUR HONOUR,—

I respectfully present herewith to Your Honour, the Annual Report of the Inspector of Mines, for the year ended September 30th, 1914.

I have the honour to be,

Your Honour's obedient servant,

ERNEST H. ARMSTRONG,

Commissioner of Public Works and Mines,

HALIFAX, December 30th, 1914.

REPORT OF THE MINES OF NOVA SCOTIA

BY HIRAM DONKIN, C. E.
INSPECTOR OF MINES.

Halifax, N. S., December 31st, 1914

*To the Honourable Ernest H. Armstrong, K. C., M. P. P.,
Commissioner of Public Works and Mines.*

SIR:—

I have the honour to submit herewith report of the Mines and Quarries of Nova Scotia, and summary of reports from Deputy Inspectors and others, for the fiscal year ended September 30th, 1914.

Various tables of statistical information in regard to the mining industry are included.

Working conditions at all the Collieries are good; development work has been kept well in advance; power installations have been maintained at their usual high efficiency, and generally, the Collieries are developed and equipped for an output very largely in excess of any that has heretofore been reached.

The Commission appointed to enquire into and report upon the use of Electricity in the Mines of the Province has, during the past year, concluded its enquiry and submitted its report.

*Nova Scotia's Mineral Production,**Year ended September 30th, 1914.*

MINERALS.	1913	1914
Coal, long ton	7,203,913 $\frac{1}{4}$	7,005,464 $\frac{1}{4}$
Pig Iron short ton,	486,962	281,428
Steel Ingots " "	483,600	341,818
Limestone " "	547,004	335,515
Coke " "	728,037	467,730
Gypsum " "	271,609	283,340
Building Stone " "	13,186	15,468
Bricks number	19,658,988	14,543,608
Drain pipe, tile, feet	1,276,159	1,592,875
Grindstone short tons	140	202
Gold-bearing ore "	7,324	13,156
Gold oz.	2,365	3,158
Moulding Sand, short tons	180	430
Tungsten Concentrate, short tons ..	10	.....
Sulphate of Ammonia, Gross tons. .	.....	4,139
Briquettes "	30,485	24,170
Barytes "	700	1,400

Iron ore imported.....562,103 tons

MINES OFFICE

Statement of Revenue for Fiscal Year ended September 30th, 1914.

SOURCE	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Totals
Prospecting-License applications.....	743.00	325.50	665.00	970.50	2,704.00
Lease applications (Gold and Silver).....	278.00	32.00	188.00	498.00	996.00
Rentals (Gold and Silver).....	.....	4.50	1,759.00	8,624.00	10,387.50
License-to-search applications.....	3,090.00	1,110.00	1,260.00	1,620.00	7,080.00
Lease applications (Other than Gold & Silver)...	100.00	600.00	300.00	150.00	1,150.00
Rentals) Other than Gold & Silver).....	.....	90.00	14,820.00	16,050.00	30,960.00
Gold Royalty.....	1,301.99	689.70	2.37	49.89	2,043.95
Coal Royalty.....	187,673.05	187,921.24	103,939.47	224,655.18	704,188.94
Fees.....	46.25	80.66	580.75	343.34	1,051.00
	\$ 193,232.29	190,853.60	123,514.59	252,960.91	760,561.39

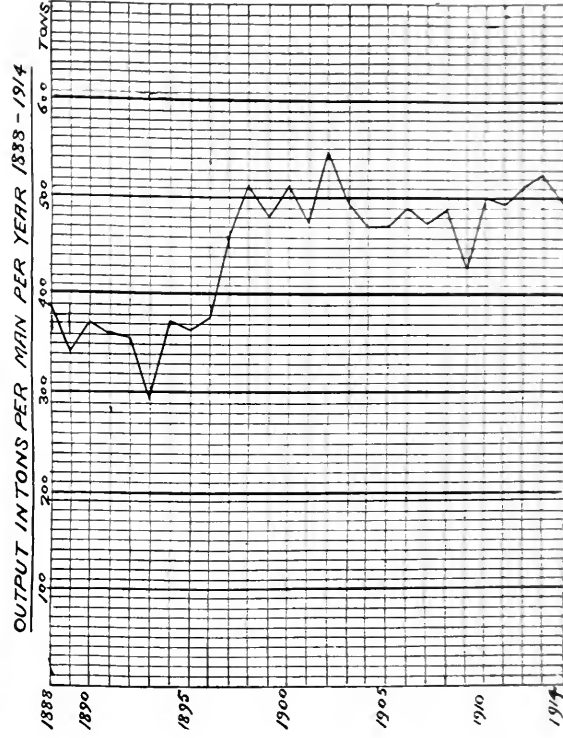
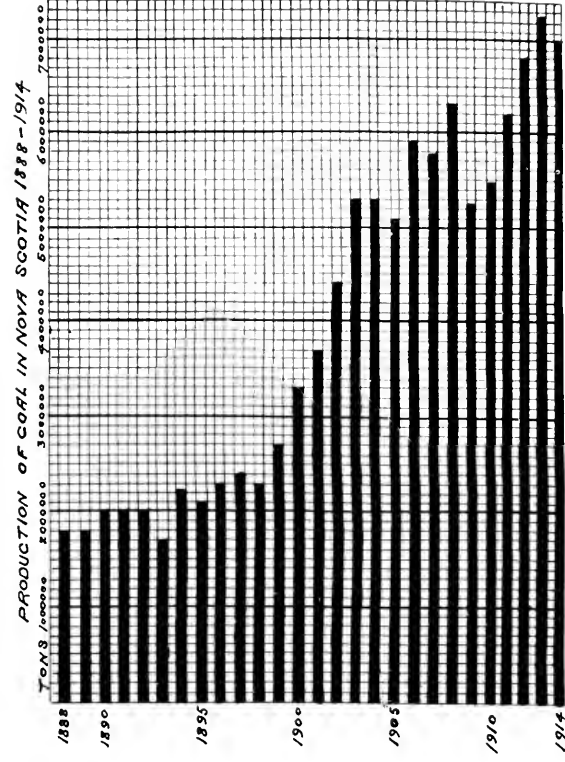
COAL TRADE.

The returns of coal sold during the year 1914 show, compared with the returns for 1913, as follows:—

DESTINATION.	1913 Tons	1914 Tons	Increase %	Decrease %
Nova Scotia.....	2,599,043½	2,203,336¾	.....	15.2
New Brunswick.....	646,642	680,491¼	5.2	.....
Newfoundland.....	210,544	225,589	7.1	.....
Prince Edward Island.....	96,082	95,781	.....	.....
Quebec.....	2,193,228	2,381,582½	8.5	.....
Ontario.....	29	.....	.....	.....
United States.....	468,090¾	300,661¼	.....	35.8
St. Pierre.....	6,650½	8,636½	29.9	.....
Other Countries.....	2,830	1,171	.....	58.6
Bunker.....	234,177	248,790½	6.2	.....
Time Chartered Boats.....	21,391½	18,559¾	.....	13.2
	6,478,709½	6,164,600¼	.....	4.85

PRODUCTION OF COAL BY COUNTIES.

COUNTY	1913 Tons	1914 Tons	Increase %	Decrease %
Cape Breton	5,594,192	5,446,011	.....	2.65
Pictou	703,583	677,419	.....	3.7
Cumberland	621,864	606,915	.....	2.4
Inverness	284,274 ¹ / ₄	275,119 ¹ / ₄	.....	3.2
	7,203,913 ¹ / ₄	7,005,464 ¹ / ₄	.....	2.75



DEPUTY INSPECTORS' REPORTS.

The following by JOHN J. McNEIL, *Deputy Inspector*, is reported respecting the mines of South Cape Breton, within his district, for the fiscal year ended September 30th, 1914.

DOMINION COAL CO., LIMITED

DOMINION No. 2, MINE, PHALEN SEAM.

Extensive improvements have been made in this mine in the last year: timbering, laying track, improving travelling-roads and haulage, and extending pipe-lines for air and water. Also large improvements made to wash-house.

The output for the fiscal year is 766,075 tons. There were 94565 lb. of explosives used: 8.1 tons of coal being produced for each pound of explosive.

There were used 1,603,162 lineal feet of props: 29,940 lineal feet of booms; and 114,145 lineal feet of sleepers. The average air circulation was 230,695 cubic feet a minute; water guage 4.6 inches.

There were pumped from the mine an average of 2,200,000 gallons of water a month.

The average working days for the mine was 21.3 a month.

There were four small engines erected underground for haulage.

There are 18,764 feet of 18 lb; 4982 feet of 30lb; and 18 feet of 60 lb. rails underground.

Officers.

A. S. McNeil, Manager; W. S. McDonald, U. G. Manager; John Murphy, Overman; Alex. Gillis, Overman; Peter Morrison, Overman; J. Caldwell, Overman; Michael Steel, Overman; Alex. Matheson, Overman; John A. Ferguson, Mechanical Foreman.

DOMINION No. 3 MINE—PHALEN SEAM.

This mine produced last year 82,557 tons. There were used 6,933 lb. of explosives, 11.9 tons of coal being produced for each pound of explosive used. There were no additions to the

surface plant or to the mechanical equipment. The mine is in good condition. There was no addition to mine roads, nor any narrow places driven during the year.

Officers.

James Kennedy, Manager; John R. McNeil, Underground Manager; James Mann, Overman; R. J. Wilton, Chief Engineer.

DOMINION No. 4 MINE—PHALEN SEAM.

The output for the fiscal year was 364,199 tons; to produce this there were used 53,632 lb. of explosives, 6.6 tons of coal being produced for each lb. of explosive used.

The sump capacity has been increased by building concrete dams.

3,000 feet of 30 lb. rails have been replaced by 60 lb. rails

A new gravity haulage has been installed, and the airways have been all cleaned. There have been general repairs to the bankhead, the boilers, the engine at the pumping-station, and the electric pump.

There were used underground 17,765 feet of 18 lb. rails; 11,593 feet of 30 lb. rails; and 2,868 feet for 60 lb. rails.

No machinery has been added above or below ground.

Officers.

John Casey, Manager; Alex. Matheson, Underground Manager; Richard Dinn, Asst. Underground Manager; J. D. McMullin, Overman; James Jobs, Overman; J. J. McIntyre, Overman; J. M. Morrison, Chief Engineer.

DOMINION No. 5 MINE—PHALEN SEAM.

The output of this colliery for the last year was 178,045 tons which was all from pillars. The mine is kept in good condition. There was no machinery added to the plant. There were used 8,772 lb. of explosives, 20.3 tons of coal being produced from each pound of explosive used.

Officers.

W. G. Ross, Manager; D. Gouthro, Underground Manager; Mark Petrie, and R. McCormack, Overmen; Thos. Hickey, Chief Engineer.

DOMINION NO. 6 MINE—PHALEN SEAM.

This mine produced 247,659 tons last year and used 41,706 lb. of explosives, 5.9 tons of coal being produced from each pound of explosive used.

A new lodgment with a capacity of 215,500 gallons was driven. Main-and-tail-rope haulage was extended 4,300 feet.

Three radial machines: 2 simplex hammer-drills: 1-18 by 8 by 33 inch pump, and 1-8 by 10 inch engine have been placed underground. No machinery has been added to the surface plant.

The main deep was laid with 60 lb. rails, a distance of 1525 feet. There were 16,260 feet of 18 lb. rails and 3,046 feet of 60 lb. rails, used.

Officers.

W. R. McDonald, Manager; John Bisson, Underground Manager; Wm. Slade, Robert D. Matheson, Overmen; James Smith, Chief Engineer.

DOMINION NO. 7 MINE—HUB SEAM.

The output of this mine, last year, was 195,374 tons; to get this output there were used 31,616 lb. of explosives 6.11; tons of coal being produced for each pound of explosives used.

The mine is in good condition and narrow work well advanced.

There were one 10 by 12 inch engine, and three 6 by 8 inch engines erected underground, and 21,380 feet of 30-lb. rails, and 31,573 feet of 18 lb. rails laid in haulage ways.

Officers.

P. T. Pendergast, Manager; W. T. Chew, Underground Manager; James Beal, Joseph McNeill, Murdoch Morrison, Overmen; and Neil A. McDonald, Chief Engineer.

DOMINION NO. 8 MINE—HARBOR SEAM.

This mine was closed on July 1st, 1914.

DOMINION NO. 9 MINE—HARBOR SEAM.

The output from this mine last year was 397,102 tons, and there were used 48,266 lb. of explosives, or 8.2 tons produced for each pound of explosive used.

The north-angle-deep haulage was extended 800 feet and a new landing made. The haulage off north deep was extended

1000 feet. The bottom of the coal-shaft was retimbered with hard pine supported on concrete blocks. South deep haulage road was brushed and secured with 80 lb. rails, used as booms. The pipe line was extended 13,400 feet, and general repairs were made to travelling-roads, haulage roads, and air courses.

There were 16,832 feet of 18 lb.; 716 feet of 30 lb. and 100 feet of 60 lb. rails used.

No new machinery was added during the year.

Officers.

D. H. McLean, Manager; D. J. McCuish, Underground Manager G. Darrach, Thos. Casey, Joseph Gillis, R. H. McDonald, W. R. Cameron, Overmen; and John Young, Chief Engineer. D. B. McKenzie, Surface Foreman.

DOMINION No. 10 MINE—EMERY SEAM.

This is a longwall mine.

The output for the last year was 163,300 tons, 20,747 lb. of explosives were used in coal getting, 7.87 tons being produced for each pound of explosives used.

The main north-level haulage was extended 600 feet and a large main-and-tail-rope engine was erected to replace a smaller one. New landings have been laid and 400 feet of level brushed and laid with 45 lb. rails.

The use of fuse for blowing coal was discontinued during the year, and all blasting is now done with battery and wire. All coal in this mine is undercut by machinery

Officers.

J. A. McDonald, Manager; F. D. Bert, Underground Manager; T. J. McDonald, Assistant Underground Manager; James Canavahan, Philip Kelly, Hector McLeod, and George Petrie, Overmen.

DOMINION No. 11 MINE—EMERY SEAM.

This mine was re-opened in April, 1913, having been closed for 13 years.

The output for last year was 81,610 tons and 8,976 lb. of explosives were used: 9.09 tons of coal being produced for each pound of explosives.

The haulage rope is 4000 feet and the mine cars have a capacity of 7-10 of a ton.

The output is all hauled to Dominion No. 3 bankhead, which is about half a mile distant from the mouth of the slope.

There are 6 pumps in the mine having a total capacity of 500 gallons a minute.

There are 1200 feet of 30 lb. and 6,600 feet of 18 lb. rails underground.

Officers.

James R. McNeil, Manager; A. J. Scott, Underground Manager; and R. J. Wilton, Chief Engineer.

DOMINION NO. 21 MINE—MCAULAY SEAM.

This mine produced last year 131,171 tons, 14,760 lb. of explosives were used, and 7.6 tons of coal produced for each pound of explosives used. The narrow work is kept well in advance and the mine is in good condition.

A 6 by 8 inch engine was placed on No. 1 east-level. This engine hauls all the coal from that section to the main haulage on the slope. There are 3000 feet of 3-8 endless rope in use on this level. A similar engine and 1700 ft. of endless, 3-8 inch, rope, were placed on No. 2 west level. Another engine which was placed this year at No. 2 east headway, lowers all the coal to the main haulage-road.

A turbine pump, with a capacity of 350 gallons a minute, has been erected, which pumps all water from the mine through the north slope.

There are 22,856 feet of 18 lb. rails underground.

Officers.

N. N. McDonald, Manager; J. J. McIntosh, Underground Manager; D. A. Ferguson, W. A. McDonald, Overmen; Fred Lind, Chief Engineer.

DOMINION NO. 22 MINE—MCAULAY SEAM.

This mine produced last year 111,417 tons, and used 14,760 lb. of explosives, or one lb. for every 7.6 tons of coal produced. The mine is operated entirely by mechanical haulage, there being no horses. The main haulage is worked by a 75 h. p. electric motor.

A new overcast was constructed during the year and concrete stoppings built in all the cross-cuts along the slope. There are 9000 feet of 8 inch air-pipe connecting the compressor with No. 21 mine.

The new machinery erected last year consisted of 1-75 h. p. electric motor: 8 double engines 6 by 8 inches; 1 engine 6 by 12 inches; 1 engine 7 by 12 inches; 1 pump 12 by 16 by 3 inches; 1 pump 14 by 8 by 18 inches; 1 boiler 30 h. p.; 1 fan 5 ft. diameter producing 75,000 cubic feet of air a minute, 3 in., w. g., driven by a 20 h. p. motor. There is an independent water supply, equipped with hydrants at convenient points for protection to colliery buildings. Air-pipes can be converted into water-pipes, in case of emergency, by opening a valve.

Officers.

Robert Simpson, Manager; James Moseley, Underground Manager; Alex. Currie, W. Copley, Overmen: Duncan McDonald, Chief Engineer.

CAPE BRETON COAL IRON & RAILWAY CO.,
LIMITED.

BROUGHTON MINE.

The output for the last year was 37,740 tons.

No. 1, slope, main deep was driven 885 feet; the back deep 430 feet, and the left hand side 930 feet; total distance for levels right hand side, 1,705 feet; the total for cross-cuts between the back slopes and main deeps, No. 1 slope, main deep, 1,660 feet; No. 3 slope, main deep was driven 1,290 feet; No. 2 back slope, right 1,100 feet; and back slope, left, 1,120 feet.

A change was made in the screens, the type now used being moving-bar and shaker.

Ten double and ten single houses were built. A new lamp-house 20 by 16 was erected. A water-line from Loon Lake to the mine was put in, and an electric pump, capacity 200 gallons a minute, was placed at Loon Lake. One boiler, 358 h. p. was erected. One generator 200 k.w. was placed which will be used for mine pumps and auxiliary hoists in connection with sinking.

The railway from the mine to the Sydney & Louisburg Railway was repaired and additional sidings for yard room at the junction have been completed. Twenty 40-ton steel cars, 30, 30-ton wooden cars., and 5, 15-ton wooden cars have been added to the rolling stock.

The railway from Mira Bay to Broughton Junction has been graded. There were 38, 990 lineal feet of ties, 6,650 feet

of pit props, 15,180 feet of face props, and 73, 908 feet of booms used.

Officers.

C. J. Coll, General Manager; Everard Parks, Superintendent;
Wm. Arthrell, Mine Manager.

Appended hereto are the following Tables relating to the Dominion Coal Company's Mines, under my inspection.

TABLE I.

Narrow Work from September 30th, 1913 to September 30th, 1914.

COLLIERY	NAME OF PLACE	Advance in feet	Cover in feet where place is undersea
No. 2	North Motor level.....	570	646
	No. 2 north level off No. 2 north deep.....	240	762
	No. 2 north deep.....	340	792
	No. 1 north level off No. 1 north deep.....	720	798
	No. 1 south level off No. 1 north deep (finished).....	450	800
	No. 1 north deep.....	1000	895
	South deep.....	500	928
	No. 1 south level off south deep.....	950	786
	No. 2 south level off south deep.....	650	803
	No. 3 south level off south deep.....	600	834
	No. 2 north level off south deep.....	360	824
	TOTAL.....	6380	
No. 4	No. 8 east level off west deep.....	650	.....
	No. 9 east level off west deep.....	400	.....
	No. 10 west level off east deep.....	740	.....
	No. 11 west level off east deep.....	760	556
	East deeps.....	620	601

No. 7 east off east deep	700	212
No. 8 " " "	700	224
No. 9 " " "	540	296
No. 10 " " "	750	398
No. 11 " " "	1100	478
No. 12 " " "	930	549
TOTAL	7890	
No. 6		
Main deeps	570	571
No. 7 east level	1000	458
No. 6 west level	750	299
No. 7 west level	1620	418
No. 8 west level	700	520
TOTAL	4280	
No. 7		
No. 4 north level	650	260
No. 5 " " "	200	341
No. 6 " " "	280	384
No. 7 " " "	300	500
No. 6 south level	710	350
No. 7 " " "	320	500
TOTAL	2460	
No. 9		
No. 3 north level, north angle deep	1270	445
North angle deep	800	542

TABLE I.—Continued.

Narrow work from September 30, 1913 to September 30, 1914.

COLLIERY	NAME OF PLACE	Advance in feet	Cover in feet where place is undersea
No. 10	South angle deep	300	532
	No. 3 south level off south angle deep	400	270
	No. 4 south level off south angle deep	1100	363
	No. 5 south level off south angle deep	860	475
	TOTAL	3730	
No. 11	Shaft level	440	
	No. 4 north level	420	
	No. 5	1130	
	No. 5 south level	1050	
	TOTAL	3040	
No. 11	No. 2 west level	900	
	No. 2½ west level	640	
	No. 3	200	
	No. 2 east level	1020	
	No. 3	130	
	TOTAL	2890	

No. 21	No. 1 east level	350	...
	“ 2 “ “	320	...
	“ 1 west level	230	...
	“ 2 west level	530	...
	<u> </u>		
	TOTAL	1430	
No. 22	Deep driving to north crop	780	...
	No. 1 east level—(finished)	340	...
	No. 2 east level	470	...
	No. 1 west level	890	...
	No. 2 west level	350	...
	<u> </u>		
	TOTAL	2830	

TABLE II.
DOMINION COAL COMPANY, LIMITED.
Statement showing production from Narrow Works, Rooms, etc., for Year ended September 30th, 1914.

Colliery	No.	Narrow Work		Machine Rooms		Hand Rooms		Pillars		Longwall		Unclas- sified	Total Output	Explo- sives lbs	Tons per lb. of ex- plosive
		Tons	%	Tons	%	Tons	%	Tons	%	Tons	%				
	1	55,562	11.5	340,877	70.6	10,493	2.1	70,663	14.6	.....	...	5,271	482,866	71,730	6.7
	2	153,716	20.1	244,435	31.9	35,883	4.7	323,254	42.2	.....	...	8,787	766,075	94,565	8.1
	3	.....	...	.....	...	15,062	18.2	67,328	81.6	.....	...	167	82,557	6,933	11.91
	4	88,891	24.4	202,408	55.6	42,941	11.8	26,993	7.4	.....	...	2,966	364,199	53,632	6.6
	5	.....	...	.....	...	29,324	16.5	147,103	82.6	.....	...	1,618	178,045	8,772	20.3
	6	52,491	21.3	191,362	77.3	.....	...	2,893	1.1	.....	...	913	247,659	41,706	5.93
	7	29,998	15.3	97,908	50.1	63,440	32.4	1,541	.8	.....	...	2,487	195,374	31,616	6.11
	8	1,187	2.4	.....	...	42,891	85.5	6,082	12.1	.....	...	29	50,189	.....	....
	9	78,665	19.8	233,477	58.8	11,685	3.	72,437	18.2	.....	...	838	397,102	48,266	8.2
	10	45,600	27.9	22,995	14.	.....	...	.....	...	94,119	57.7	586	163,300	20,747	7.87
	11	23,927	29.3	57,599	70.6	.....	...	.....	...	.....	...	84	81,610	8,976	9.09
	12	55,153	14.1	208,150	53.3	8,022	2.	118,943	30.4	.....	...	65	390,333	75,495	6.8
	14	116,521	28.3	287,284	70.0	6,742	1.6	.....	...	.....	...	79	410,626	63,697	6.4
	15	49,186	21.5	111,711	48.8	54,396	23.8	676	.3	12,300	5.4	61	228,330	42,884	5.3
	16	50,680	19.1	117,754	44.5	27,926	10.6	24,579	9.3	43,042	16.3	234	264,215	51,130	5.1
	17	6,351	100.	.....	...	.....	...	.....	...	.....	...	.....	6,351	1,300	5.8
	21	23,957	18.3	87,258	66.6	.....	...	19,016	14.5	797	.6	143	131,171	19,384	6.7
	22	40,642	36.5	70,544	63.4	.....	...	.....	...	.....	...	231	111,417	14,760	7.6
TOTAL		872,527	19.1	2,273,738	50.0	348,805	7.6	881,508	19.4	150,258	3.3	24,559	4,551,419	.....	.....

TABLE III.

DOMINION COAL COMPANY, LIMITED.

Statement showing the Quantity of Air in Circulation and Water Gauge at each Colliery as existing September 30th, 1914.

COLLIERY		Cubic Feet of Air per min.	Water Gauge. (Ins.)	
Dominion No.	1.....	163,800	2.3	
"	" 2.....	230,695	4.6	
"	" 3.....	86,000	2.6	
"	" 4.....	114,000	2.9	
"	" 5.....	138,000	1.4	French Slope
"	" 6.....	71,600	1.8	
"	" 7.....	75,000	1.9	
"	" 8.....			Closed down
"	" 9.....	200,500	3.1	
"	" 10.....	44,640	.5	
"	" 11.....	18,000	.3	
"	" 12.....	125,000	1.1	
"	" 14.....	134,000	1.8	
"	" 15.....	179,000	1.6	
"	" 16.....	110,000	1.4	
"	" 21.....	50,000	.3	
"	" 22.....	52,000	.7	

TABLE IV.
DOMINION COAL COMPANY, LIMITED.
Timber used at Collieries for Year ended September 30th, 1914.

No.	COLLIERY	PROPS		BOOMS		SLEEPERS	
		Number	Lineal Feet	Number	Lineal Feet	Number	Lineal Feet
1.....		63,873	574,857	1,364	22,620	25,763	103,052
2.....		188,610	1,603,162	2,196	29,940	22,470	114,845
3.....		28,135	252,991	419	6,672	842	4,210
4.....		64,064	498,204	3,892	54,488	23,902	100,032
5.....		41,733	375,597	175	2,642	6,926	28,016
6.....		27,040	192,910	736	10,738	19,290	96,630
7.....		53,892	402,855	4,438	60,587	8,462	33,848
8.....		18,022	126,178	56	786	1,636	6,544
9.....		108,210	748,764	2,727	38,862	22,989	116,590
10.....		78,994	418,344	779	10,906	10,446	42,180
11.....		42,811	129,353	25	350	3,087	12,398
12.....		70,210	492,925	3,810	50,641	28,098	113,003
14.....		61,293	466,856	12,557	158,829	25,751	105,292
15.....		71,342	474,339	4,073	53,432	26,435	106,012
16.....		77,279	494,138	5,482	72,707	27,445	109,780
21.....		26,122	183,604	8	128	11,029	44,116
22.....		31,228	200,243	55	820	8,012	32,048
TOTAL.....		1,052,858	7,635,320	42,792	575,148	272,583	1,168,596

TABLE V.

DOMINION COAL COMPANY, LIMITED.

*Statement showing Average Number of Gallons of Water Pumped
for each Colliery for Year ending Sept. 30th, 1914.*

Colliery.		Gallons per Month.
Dominion No.	1.....	17,000,000
" "	2.....	2,200,000
" "	3.....	
" "	4.....	45,000,000
" "	5.....	22,500,000
" "	6.....	7,000,000
" "	7.....	11,000,000
" "	8.....	34,000,000
" "	9.....	26,000,000
" "	10.....	15,000,000
" "	11.....	
" "	12.....	4,000,000
" "	14.....	3,700,000
" "	15.....	3,000,000
" "	16.....	3,300,000
" "	21.....	3,000,000
" "	22.....	2,000,000
TOTAL.....		198,700,000

"	17	10	35	37	2	54	54	0	29.04	83	100	3,622	8,023	"	...	10,122
"	24	10	30	32	2	54	54	0	29.30	79	100	2,857	8,023	"	...	11,881
Feb.	14	10	18	20	2	54	54	0	29.82	70	100	1,480	8,023	"	...	15,048
"	21	10	20	23	3	54	55	1	29.44	59	94	1,430	7,807	"	...	14,667
"	28	10	35	37	2	53	53	0	29.46	83	100	3,622	7,751	"	...	9,496
Mar.	27	10	48	49 $\frac{1}{2}$	1 $\frac{1}{2}$	56	56	0	29.34	90	100	6,173	8,592	"	...	5,563
April	4	..	22 $\frac{1}{2}$	26	3 $\frac{1}{2}$	53 $\frac{1}{2}$	53 $\frac{1}{2}$	0	29.40	57	100	1,579	7,619	"	...	13,892
"	12	..	43	46	3	55	55	0	28.80	79	100	4,781	8,306	"	...	8,107
"	18	..	41	43	2	54	54	0	29.22	85	100	4,621	8,023	"	...	7,824
"	25	10	38	41	3	54	54	0	29.79	76	100	3,841	8,023	"	...	9,618
May	2	10	38	40	2	54	54	0	28.78	83	100	4,046	8,023	"	...	9,262
"	22	10	66	68 $\frac{1}{2}$	2 $\frac{1}{2}$	56	57	1	29.76	88	94	11,466	8,358	"	7,153	...
"	30	10	51	55	4	56	56 $\frac{1}{2}$	1 $\frac{1}{2}$	29.62	76	97	6,312	8,467	"	...	4,956
June	6	10	49	52	3	56	56	0	28.96	81	100	6,064	8,592	"	...	5,814
"	20	10	53	54	1	57	57	0	29.30	94	100	7,541	8,891	"	...	3,105
July	4	10	52	54	2	57	57	0	29.60	88	100	7,058	8,891	"	...	4,215
"	11	10	58	67	9	58	59	1	29.52	58	94	5,158	8,944	"	...	8,707
"	18	10	74 $\frac{1}{2}$	77	2 $\frac{1}{2}$	59	60	1	29.31	89	94	9,251	8,770	"	1,106	...
"	25	..	62	64	2	58 $\frac{1}{2}$	59	1 $\frac{1}{2}$	29.22	90	97	10,124	9,229	"	2,058	...
Aug.	8	10	78	80	2	58	60	2	29.44	91	89	17,085	8,756	"	19,156	...
"	14	..	60	62	2	59	59	0	29.50	89	100	9,365	9,516	"	7,300	1,347
Sept.	5	10	69	71	2	59 $\frac{1}{2}$	60	1 $\frac{1}{2}$	29.32	90	97	12,719	9,545	"	867	...
"	12	10	61	62	1	59	59	0	29.62	94	100	9,893	9,516	"	...	3,721
"	19	10	56	59	3	59	59	0	29.32	83	100	7,898	9,516	"	...	...
"	26	10	63	63	0	60	60	0	29.30	100	100	10,880	9,843	"	2,385	...

The following by NEIL A. NICHOLSON, *Deputy Inspector*, is reported respecting the mines in North and South Cape Breton, within his district.

NOVA SCOTIA STEEL & COAL CO., LIMITED.

SYDNEY No. 1 MINE—SYDNEY MAIN SEAM.

This is a hand-pick mine.

The output last year was 168,723 tons, and 12,000 lbs. of explosives were used, 14.2 tons of coal being produced for each pound of explosive used. Nearly half of output was taken from pillars. The narrow work is well in advance.

The average ventilation was 85,280 cubic feet a minute, water gauge 1 in.

Some sections are dry and are sprayed.

Much attention has been paid to the travelling-roads which are in good condition.

No new machinery was added in the last year. Marsaut safety lamps are used.

Officers.

J. W. Johnstone, Manager; Michael Dwyer, Asst. Manager; John Hill, Underground Manager; Fred Lockman, Asst. Underground Manager; Duncan Jardine, Dan Colburn, Arnold Ernest, Frank Ferguson, Chas. Young, Overmen; W. E. Oram, Surface Foreman; Joseph McKinnon, Engineer.

SYDNEY No. 2 MINE,—LLOYD'S SEAM.

The output last year was 124,882, tons; 24,965 lb. of explosives were used, 5 tons of coal being produced for each pound of explosives used.

The average quantity of air in circulation was 36,660 cubic feet a minute, water gauge 1.8. Marsaut safety lamps are used.

The cover at the shore line is 104 feet.

The first lift is 3,400 feet from the crop line, where the cover is 450 feet. The mine is damp. The coal is all mined by machines with power supplied by compressed air.

There is sufficient pumping-plant to discharge 43,200 gallons an hour.

A 2200-volt transmission line was extended to the mouth of the slope and connected to an underground cable running to No. 4 level, the cable consisting of three conductors, 19 strands, 17-gauge copper-wire, bitumen-insulated and steel wire armored. This installation is to operate two single-stage turbine pumps having a capacity of 300 gallons a minute, against a head of 150 feet. The system is equipped with flame-proof switches and transformers underground.

Officers.

Duncan G. McDonald, Manager; Dan Brown, Underground Manager; W. R. Coll, Wallace Caldwell, Overmen; James Costello, Surface Foreman.

SYDNEY NO. 3 MINE—SYDNEY MAIN SEAM.

This colliery produced, last year, 208,855 tons, and used 24,151 lb. of explosives, being 8.6 tons of coal produced for each pound of explosives used.

There were 51,000 cubic feet of air a minute in circulation; water gauge 2.5 inches. The Marsaut safety lamp is used. The seam is gaseous: the floor and roof are shale; some places are dry and dusty and water tubs with sprays are used. The coal is mined by machines operated by compressor air. The travelling-roads are in good condition.

The maximum quantity of water that can be discharged is 24,000 gallons an hour.

There were used 385,580 feet of 18 lb. rails; and 78,170 feet of 28 lb. rails.

Officers.

Angus A. Ferguson, Manager; R. Dickson, Underground Manager; Joseph Hunter, Hugh Dickson, and Peter Baxendale, Overmen; John H. Mann, Engineer; Wm. Campbell, Surface Foreman.

SYDNEY NO. 4 MINE—SYDNEY MAIN SEAM.

The output was 168,252 tons. There were 30,386 lb. of explosives used, 5.6 tons of coal being produced for each pound of explosives used. The average ventilation was 62,150 cubic feet of air a minute, water gauge 2.5 inches. Marsaut safety lamps are used. The mine is free from gas and is damp. The roof and floor are shale.

The coal is mined partly by electric machines and partly by hand picks. The travelling-roads are in good condition.

The water supply is obtained from an artesian well, and in case of fire, a reservoir on the surface can be drawn on.

The electric installation mentioned in the last report is completed.

There are 5,190 feet of 12 lb.; 103,996 feet of 18 lb.; 41,400 feet of 28 lb.; and 3,740 feet of 30 lb. rails in the mine.

Officers.

Wm. Tobin, Manager; James Greenwell, Underground Manager; J. W. Miles, George Morris and John Ramsdale, Overmen; George Johnstone, Engineer; and Thomas Jardine, Surface Foremen.

SYDNEY NO. 5 MINE—SYDNEY MAIN SEAM.

This mine produced 98,345 tons, all from pillars. There were 14,288 lb. of explosives used, 6.9 tons of coal being produced for each pound of explosive used.

The average ventilation was 45,150 cubic feet a minute, water gauge 4.5 inches. Marsaut safety lamps are used. The pumping-plant capacity is 18,000 gallons an hour.

The travelling-roads are in good condition.

There are in the mine 1,100 feet of 12 lb.; 67,444 feet of 18 lb.; and 12,160 feet of 24 lb. rails.

Officers.

Robert Robertson, Manager; Alex. McDonald, Underground Manager; Andrew Baillie and Fred McDonald, Overmen; Alex. Boyd, Surface Foreman.

JUBILEE MINE, SHAFT A—No. 3 SEAM.

Work was suspended at this mine on May 1st, 1914. Sinking of new shaft B, 26 by 17 feet, was commenced on August 20th, 1913, and stopped on May 31, 1914; the depth reached is 430 feet, distance to be sunk 130 feet.

The output was 25,820 tons, and 2,060 lb. of explosives were used, 12.7 tons of coal being won for each pound of explosive.

The method of work was longwall.

The average air circulating was 7000 cubic feet a minute, water gauge 2.5 inches. Marsaut safety lamps were used.

There is in course of construction on surface, one electric hoist, driven by an 85 h. p. 500 R. P. M. motor, the hoist being

capable of hoisting 2,240 pounds at a maximum speed of 15 feet a second. The winder is controlled by a converter-set, consisting of a direct-current shunt-wound generator with commutation poles, driven by a slip-ring type, 3-phase induction-motor, having a mean output of 67 K. W., at a speed of 1,175 revolutions a minute, this set being supplied with 3 phase 60 cycle alternating-current, at 2,200 volts.

There is being placed underground, one No. 2 stage-turbine-pump, capacity 150 imperial gallons a minute, against a head of 500 feet, when operating at 1,700 revolutions a minute. This pump is directly connected to and driven by a 42 h. p., 1,800 revolutions a minute, 220 volt, 60 cycle 3-phase motor controlled with an automatic starting-compensator.

Maximum quantity of water that can be discharged in an hour, 9,000 gallons.

SYDNEY COAL CO., LIMITED.

INDIAN COVE MINE—No. 3 SEAM.

This mine produced 5,210 tons of coal. It is a hand-pick mine, with natural drainage and natural ventilation, about 6000 cubic feet a minute being in circulation.

The seam is soft and free from gas; the roof is hard with a fire-clay bottom. The travelling way is along the main level which is in good condition.

There were used during the year 3600 feet of 5-feet props, and 1,440 feet of 2-feet caps.

H. G. Campbell, Manager.

THE COLONIAL COAL CO., LIMITED.

MACKAY MINE—MACKAY SEAM.

This mine produced, during the year, 30,575 tons of coal and used 20,888 lb. of explosives. There were about 70 men employed. About 9000 cubic feet of air a minute is circulating.

The men travel on the haulage-road to and from their work, and the man-holes are kept in good condition.

There are in the mine 1200 feet of 26-lb, 600 feet of 21 lb., 5,224 feet of 18 lb., and 16,096 feet of 12 lb. rails.

Officers.

David Rorison, Manager; Andrew Irving, Underground Manager; and J. W. Weir, Engineer.

COLONIAL MINE—COLLINS SEAM.

The output for the year, was 26,199 tons, and 10,563 lb. of explosives were used, 2.4 tons of coal being produced for each pound of explosives used. There are 20,000 cubic feet of air a minute circulating, water gauge 1.8 inch. The pumping-plant is capable of discharging 11,500 gallons an hour.

Officers.

George B. Burchell, Manager; Thomas Carr, Underground Manager; Thomas Merritt, Overman; James McDonald, Chief Engineer.

DOMINION COAL CO., LIMITED.

DOMINION No. 1 MINE—PHALEN SEAM.

This mine produced 482,866 tons and used 71,730 lb., of explosives, 6.7 tons of coal being produced for each pound of explosives used.

The mine is gaseous, roof and floor are shale. There is no spraying done. The accumulations of dust are loaded out. The ventilation is good with 2.2 inches of water gauge. Ackroyd & Best safety lamps are used. The travelling-roads are in good condition.

The pump installation is sufficient to discharge 105,000 gallons an hour.

There are in the mine 140,576 feet of 18 lb., 54,113 feet of 30 lb., and 29,451 feet of 56 lb. rails.

Officers.

John Munroe, Manager; Hector Campbell, Underground Manager; Joseph Farrell, Asst. Underground Manager; Walter Donovan, Pierce Corbett, John McLean, Archibald P. Ferguson, Harry Hines, Overmen.

DOMINION No. 12—VICTORIA SEAM.

The production from this mine for the year, was 390,333 tons; 75,495 lb. of explosive were used, 6.8 tons of coal being produced for each pound of explosive used. The mine is gaseous and damp. The slopes are down 3,700 feet, and the cover at the face is 703 feet. The travelling-roads are in good condition. The ventilation is good; water gauge 1.1 inch. Ackroyd & Best safety lamps are used. The pumping-plant can discharge 30,000 gallons an hour.

There are in the mine 1237 feet of 60 lb., 19,455 feet of 30 lb., and 136,970 feet of 18 lb. rails.

Officers.

Angus D. McDonald, Manager; E. A. Lind, Underground Manager; David Morrison, Rod D. McNeil, James Campbell, Joseph McIsaac, Overmen. William White, Surface Foreman, Melvin Larsen, Chief Engineer.

DOMINION No. 14—VICTORIA SEAM.

This mine produced 410,626 tons, and used 63,697 lb., of explosives 6.4 tons of coal being won for each pound of explosive used.

The mine is gaseous and damp and no spraying is necessary. The roof is shale, the pavement is slate covered with from 2 to 4 inches of fire-clay. The slopes are down 3,300 feet. This mine is divided into east and west sections, and has 160 working places. Air courses have been driven, on each side, 600 feet. A new lodgment, having a capacity of 825,000 gallons, has been driven below No. 6 level. The travelling-roads are in good condition.

The ventilation is good; water gauge 1.8 inches. Ackroyd & Best safety lamps are used.

Two main-and-tail-rope engines, 6 by 8 in., have been placed, one on No. 4 east level, and one on No. 4 west level. A new brick pump-house has been built. Dimensions:—32 by 22 feet, height 16 feet, thickness of wall 12 inches, on piers 2 feet thick. Two concrete dams have been built at the lodgment, the dimensions being 14 by 10½ feet, thickness 5 feet. One electrically driven Aldrich quintuplex pump has been erected at the lodgment, situated above No. 3 level. The water is discharged through a borehole near the shore. The pump which is 8 by 12 inches has a capacity of 600 gallons a minute, and a lift of 600 feet, and is driven by an induction motor, type C. M., 120 h. p., 2200 volts, 28 amperes a terminal, 3 phase, 3000 alts., 480 R. A. M., at full load, serial No. 41571. A new line of 6 inch cast-iron pipe has been laid from No. 6 to No. 2 level, a distance of 2100 feet. A new line of 10 inch discharge-pipe has been laid from the new electric pump to borehole, a distance of 342 feet. Six hundred feet of cable has been laid through a bore-hole near the shore, from the transformer-house to the new pump.

Officers.

Bart. Connors, Manager; John P. McIntyre, Underground Manager; Joseph Pickup, John J. McPhie, George McLean, Overmen; Michael Laffin, Surface Foreman; Hugh J. McNeil, Chief Engineer.

DOMINION No. 15 MINE—LINGAN SEAM.

The output was 228,330 tons. There were 42,884 lb. of explosives used: 5.3 tons of coal being won for each pound of explosive used.

There were 100,000 cubic feet of air a minute circulating; water gauge 1.5 inches. Ackroyd & Best safety lamps are used.

The coal is gaseous, but the mine is damp, and no spraying is required. The roof is shale and clay with alternate bands of sandstone, the floor is very hard clay. The travelling roads, are in good condition down to No. 2 level; from No. 2 to No. 3, a new travelling-road, is being driven. The maximum quantity of water that can be discharged is 5,100 gallons an hour.

There are in the mine 8,551 feet of 60 lb., 5,073 feet of 30 lb., and 41,848 feet of 18 lb. rails.

A brick engine-house 47 by 47 feet was built and a 1200 h. p. engine installed.

Officers.

Michael McIntosh, Manager; Michael McLeod Underground Manager; Robt. Lorimer; Dennis Pendergast, Archibald McQueen, Overmen; George Petrie, Engineer, N. H. McLean, Surface Foreman.

DOMINION No. 16—LINGAN SEAM.

This mine produced last year 264,215 tons, and consumed 51,130 lbs. explosives, 5.1 tons of coal being produced for each pound of explosives used. There are 110,000 cubic feet of air a minute in circulation; water gauge 1.4 inches.

The mine is gaseous and damp—No spraying is required. Ackroyd & Best safety lamps are used. The roof is shale and clay with alternate bands of sandstone, the floor is very hard clay. The slope is 3321 feet long, and there are 135 working places in the mine. About 1700 feet of longwall face is worked.

The travelling roads are in good condition.

A brick engine-house 47 by 47 feet was built and a 1200 h. p. engine installed. A new pump was placed at No. 4 and an endless haulage installed on No. 2 west level.

Officers.

M. S. Beaton, Manager; I. H. Oliver, Underground Manager; A. R. McLellan, Stephen McNeil, Wm. Cooke, John A. Rey, Overmen; Wm. H. McDonald, Surface Foreman; D. E. McKay, Chief Engineer.

Appended hereto are tables relating to the mines under his inspection.

Development Work during the Year.

Dominion No. 1 Colliery.

No. 10 Levels Angle Deep were driven 600 feet.

" 11 " " " " " 950 "

" 13 " " " " " 900 "

The Angle Deeps were driven 700 feet.

The Auxiliary Deeps were driven 580 feet.

No. 14 Levels North were driven 350 feet.

" 15 " " " " " 280 "

TABLE I.

Dominion No. 12 Colliery.

	Dist. during year.	Total Distance.	Depth of Cover.
No. 5 Levels East	600	2645	468
" 6 " "	1035	2195	575
" 1 " West	1000	3708	70
" 2 " "	700	3842	190
" 3 " "	600	3853	286
" 4 " "	350	2087	395
" 5 " "	570	3890	508
" 6 " "	615	1440	578
Deeps . . . . .	.....	.....	703

TABLE I.—*Continued.**Dominion No. 14 Colliery.*

	Dist. during year.	Total Distance.	Depth of Cover.
No. 2 Levels East	525	3325	175
" 3 " "	420	3220	280
" 4 " "	625	2925	397
" 5 " "	1320	2940	490
" 6 " "	1350	1650	600
" 7 " "	1050	1050	697
" 8 " "	80	80	800
" 5 " West	1140	2660	470
" 6 " "	1500	1650	605
" 7 " "	760	760	700
" 8 " "	100	100	800
Deeps . . . . .	.....	.....	810

Dominion No. 15 Colliery.

	Dist. during year.	Total Distance.	Depth of Cover.
No. 1 Levels East	300	2350	80
" 2 " "	1200	4150	210
" 3 " "	1400	2900	420
" 4 " "	1200	2450	618
" 5 " "	800	800	759
" 1 " West	300	2400	98
" 2 " "	400	3100	244
" 3 " "	1200	2650	439
" 4 " "	1400	2400	604
" 5 " "	500	3500	756
Deeps	300	3900	850

TABLE II.

*Timber used underground Dominion No. 1 Colliery.**Year ended September 30th, 1914.*

Class of Timber.	Length Feet	Diameter small end Inches.	No. of Pieces	Total Lineal feet
Pit props Booms	9	5"	63,873	574,857
	14	6"	23	138
	16		353	5,648
	14	8"	77	1,078
	16	8"	101	1,616
	17	8"	696	11,832
	18	8"	78	1,406
	20	8"	36	720
Sleepers		Width of face and thickness		
	4	4"x4"	23,808	95,232
	4	6"x6"	1,955	7,820

TABLE II.—*Continued.**Timber used underground Dominion No. 12 Colliery.**Year ended September 30th, 1914.*

Class of Timber	Length feet	Diameter small end inches	No. of pieces	Total Lineal feet
Pit props	7	5"	75,990	531,930
	8	5"	1,070	8,560
	6	5"	100	800
Booms	11	6"	47	517
	12	6"	97	1,164
	13	6"	3,098	40,274
	14	6"	244	3,416
	16	6"	300	4,800
	18	6"	24	432
Sleepers		Width of face and thickness		
	4	4"x4"	25,837	103,348
	4	6"x6"	4,247	16,988
	6	4"x4"	140	840
	8	8"x8"	123	984

TABLE II.—*Continued.**Timber used underground Dominion No. 14 Colliery.**Year ended September 30th, 1914.*

Class of Timber	Length feet	Diameter small end inches	No. of pieces	Total Lineal feet
Pit props	7	5"	24,937	174,573
	8	5"	35,600	284,800
	9	5"	1,443	12,987
Booms	11		3,626	39,886
	12		3,566	42,792
	13		1,024	13,312
	14		3,129	43,806
	16		1,309	20,944
	20		2	40
Sleepers		Width of face and thickness		
	4	4"x4"	21,982	87,928
	4	6"x6"	2,333	9,332
	6	6"x6"	50	300
	8	6"x6"	555	4,440

TABLE II.—*Continued.**Timber used underground Dominion No. 15 Colliery.**Year ended September 30th, 1914.*

Class of Timber	Length feet	Diameter small end inches	No. of pieces	Total Lineal feet
Pit props	6	5"	45,386	272,316
	7	5"	3,710	25,970
	8	5"	21,072	168,576
Booms	11	6"	977	10,747
	12	6"	696	8,352
	13	6"	794	10,322
	14	6"	935	13,090
	16	6"	748	11,968
Sleepers		Width of face and thickness		
	4	4"x4"	25,922	103,688
	4	6"x6"	5,172	20,688
	6	6"x6"	338	2,028

TABLE II.—*Continued.**Timber used underground Dominion No. 16 Colliery.**Year ending September 30th, 1914.*

Class of Timber	Length feet	Diameter small end inches	No. of pieces	Total Lineal feet
Pit props	5	5"	17,261	86,305
	6	5"	16,006	96,036
	7	5"	41,776	292,432
Booms	11	6"	1,116	12,276
	13	6"	3,262	42,406
	14	6"	152	2,128
	16	6"	179	2,864
	18	8"	185	3,330
	14	8"	174	2,436
	16	8"	233	3,728
	15	8"	427	6,405
Sleepers		Width of face and thickness		
	4	4"x4"	28,532	114,128

TABLE II.—*Continued.**Timber used underground Sydney No. 1 Colliery.**Year ended September 30th, 1914.*

Class of Timber	Length feet	Diameter small end inches	No. of pieces	Total Lineal feet
Pit props	6	4"	120,636	723,816
Booms	6	8"	68,741	412,446
	8	5"	2,098	16,784
	10	6"	2,456	24,560
	12	6"	1,913	22,956
	14	6"	647	9,058
	16	6"	637	10,192
Sleepers		Width of face and thickness		
	4	4"x4"	7,095	28,380
	5	4"x4"	1,527	7,635

TABLE II.—Continued.

*Timber used underground Sydney No. 2 Colliery.**Year ended September 30th, 1914.*

Class of Timber	Length feet	Diameter small end inches	No. of pieces	Total Lineal feet
Pit props	6	4"	80,965	485,790
	8	6"	24,584	596,672
Booms	10	6"	4,795	47,950
	12	6"	2,217	26,604
	16	9"	812	12,992
Sleepers		Width of face and thickness		
	4	4"x4"	12,425	49,700

*Timber used underground Sydney No. 3 Colliery.**Year ended September 30th, 1914.*

Class of Timber	Length feet	Diameter small end inches	No. of pieces	Total Lineal feet
Pit props	6	4"	103,757	622,542
	8	4"	29,976	199,840
Booms	10	6"	1,095	10,950
	12	6"	1,289	15,468
	14	6"	22	308
	16	6"	1,624	25,984
	18	6"	3	54
Sleepers		Width of face and thickness		
Caps	4	4"x4"	34,902	159,608
	2	4"x4"	55,744	101,488

TABLE II.—*Continued.**Timber used underground Sydney No. 4 Colliery.**Year ended September 30th, 1914.*

Class of Timber	Length feet	Diameter small end inches	No. of pieces	Total Lineal feet
Pit props	6	4"	73,787	442,722
	8	6"	30,915	247,320
Booms	10	6"	1,415	14,150
	12	6"	774	9,288
	16	9"	1,803	28,848
Sleepers		Width of face and thickness		
Caps	4	4"x4"	8,279	33,116
	2	4"x4"	3,768	7,536

*Timber used underground Sydney No. 5 Colliery.**Year ended September 30th, 1914.*

Class of Timber	Length feet	Diameter small end inches	No. of pieces	Total Lineal feet
Pit props	6	4"	50,000	300,000
	8	6"	10,000	80,000
Booms	10	6"	2,000	20,000
	12	6"	1,500	18,000
	16	9"	500	8,000
Sleepers		Width of face and thickness		
	4	4"x4"	45,000	180,000

TABLE II.—*Continued.**Timber used underground, Colonial Mine.**Year ended September 30th, 1914.*

Class of Timber	Length feet	Diameter small end inches	No. of pieces	Total Lineal feet
Pit props	6	4"	10,379	62,274
Booms	8	6"	1,700	13,600
Sleepers		Width of face and thickness		
	4	4"x4"	2,578	11,312

*Timber used underground, Mc Kay Mine.**Year ended September 30th, 1914.*

Class of Timber	Length feet	Diameter small end inches	No. of pieces	Total Lineal feet
Pit props	6	4"	12,452	74,712
Booms	10	5"	250	2,500
Sleepers		Width of face and thickness		
	4	4"x4"	3,155	12,620

The following by W. F. DAVIS, *Deputy Inspector*, is reported respecting the mines in the Inverness District, for the fiscal year ended September 30, 1914.

INVERNESS RAILWAY & COAL CO., LIMITED.

INVERNESS MINE — INVERNESS SEAM.

This mine is in good condition. The slope has been double-tracked to No. 7 landing, 700 feet beyond where it was double-tracked last year.

The riding-slope has been extended to No. 8 level, 500 feet during the year. A suitable waiting room has been completed. The travelling-roads are good. The ventilation is 85,000 cubic feet a minute. The output was 275,119 tons; 41,070 lb. of explosives were used, 6.6 tons of coal being won for each pound of explosive used. A new engine 34 by 34 by 72 inches was erected.

There were used 19,144 feet of 18-lb: 2372 feet of 30-lb; 2327 feet of 12-lb., and 585 feet of 56-lb. rails

Officers.

J. McGillivray, General Manager; H. A. McLeod, Manager; N. P. McLellan, Underground Manager; William Hamilton, J. D. Ferguson, J. A. Kennedy, Overmen.

CANADIAN ATLANTIC COAL CO., LIMITED.

WHITESIDE MINE—WHITESIDE SEAM.

Prospecting was done at Inhabitants Basin, Richmond County. There are two slopes on the property in different seams of coal. The first seam shows 18 inches of coal at the crop, and dips 26 degrees. As the seam did not increase in thickness the slope was abandoned at 325 feet. The plant was moved to another seam near the shore. This seam is 3 feet thick and dips 26 degrees. At 125 feet in the slope, the seam increased to 4 feet, but there was a band of rock from 4 to 16 inches, and this slope was abandoned.

RICHMOND MINE—RICHMOND SEAM.

This mine was abandoned in 1908. It was re-opened in August 1914, and the mine is ready for further development. The Company purpose to sink the shaft 250 feet farther, when

it will be 450 feet deep. If the seam proves as good as expected, another shaft half a mile distant on the same seam, will be sunk.

There is on the ground, to be erected one 115 h. p. hoisting-engine, and one 30 h. p. fan. There are 30 men employed.

Officers.

H. M. Pearl, general manager; D. C. Campbell, Superintendent; John McDonald, mine Manager, James Langley, Engineer.

Appended hereto is a table of timber used underground, Inverness Mine.

Timber used underground Inverness Mine.

Year ended September 30th, 1914.

Class of Timber	Length feet	Diameter small end inches	Number of pieces	Total Lineal feet
Pit props	7	6	156,679	1,096,753
Booms	14		3,274	13,096
	12		118,110	1,417,320
	10		9,688	96,880
Sleepers		Width of face and thickness		
		6x5x6	771	4,626
		4x4x8	4,552	36,416
		5x6x8	2,143	17,144
		6x8x8	85	680
		4x4x4	5,873	23,492
		5x5x4	2,060	8,244

PICTOU DISTRICT.

The following by THOMAS BLACKWOOD, *Deputy Inspector*, is reported respecting the mines in the Pictou District, for the fiscal year ended September 30th, 1914.

ACADIA COAL CO., LIMITED.

ALLAN MINE—FORD SEAM AND CAGE SEAM.

The condition of this mine is satisfactory. The ventilation is excellent and the roads are good. The narrow work has been kept well in advance. A new air-compressor was installed during the year. The output was 152,981 tons, an increase over 1913 of 37,005 tons. There were 41,439 lb. of explosives used, 3.7 tons of coal being won for each pound of explosive. Wolf safety lamps are used.

The surface plant is in good repair.

There were used 750 feet of 12-lb., 25,404 feet of 18-lb., and 5,985 feet of 20-lb. rails.

Average barometer and thermometer readings underground.

		BAROMETER	THERMOMETER
October,	1913	29.61 inches	58 degrees
November	"	29.19 "	54 "
December	"	29.13 "	52 "
January	1914	28.76 "	48 "
February	"	29.90 "	48 "
March	"	29.52 "	46 "
April	"	29.10 "	48 "
May	"	29.55 "	48 "
June	"	29.35 "	50 "
July	"	29.41 "	48 "
August	"	29.60 "	51 "
September	"	29.30 "	51 "

Officers.

James Brown, Superintendent; Alex. Sutherland, Manager; Neil McLean, Underground Manager; Thos. Scully, Alex. Munro, Ed. O'Reilly, Overmen; D. Reynolds Engineer; Rod Campbell, Surface Foreman.

ACADIA COAL CO., LIMITED.

ACADIA MINE—MAIN SEAM.

Work in this mine ceased in February 1914, and since the 1st of April, the Department of Mines has kept the slopes in repair and maintained sufficient ventilation to keep the mine free from dangerous accumulation of gas. This action was taken having in view the negotiations undertaken between the two companies interested and the Government, under the provisions of Chapter 11 of the Acts of 1914.

The output was 31,054 tons, and 4,949 lbs. of explosives were used, 6.2 tons being produced for each pound of explosives. The Wolf safety lamp was used. Since production ceased, 15 men are employed to keep up repairs.

ACADIA COAL CO., LIMITED

ALBION MINE—FORD SEAM, FOUR FEET SEAM.

CAGE SEAM, THIRD SEAM, MCGREGOR SEAM.

The condition of the workings in all the seams is satisfactory. The ventilation and the travelling-roads are good. The development work is well in advance. There was no new machinery added on surface or underground.

The output for the year was 233,765 tons, an increase over the previous year of 18 188 tons.

There were used 46,091 lb. of explosives.

No new machinery was added to the plant, above or below ground.

Officers.

John Higson, Superintendent; Daniel Gillis, Manager 3rd seam; Daniel Moss, Manager, McGregor seam; Sutherland McDougall, Underground Manager, 3d seam; George Burden, Underground Manager, McGregor Seam; Wm McDonald, James McDonald, Overmen; Louis Campbell, Surface Foreman; George Conway, Chief Engineer.

Barometric Pressure and Temperature.

		BAROMETER	THERMOMETER
October,	1913	29 inches	62 degrees
November	"	29.72 "	60 "
December	"	29.84 "	51 "
January	1914	29.26 "	43 "
February	"	29.90 "	38 "
March	"	28.34 "	42 "
April	"	29.47 "	47 "
May	"	29.13 "	52 "
June	"	28.94 "	57 "
July	"	29.38 "	64 "
August	"	29.20 "	64 "
September	"	28.96 "	65 "

ACADIA COAL CO., LIMITED.

VALE MINE—SIX FEET SEAM.

Production ceased in this mine in April, 1914, and notices were posted by the Company, to the effect that the duration of the suspension of work was indefinite, on account of trade conditions.

The mine is being pumped and ventilated.

An electrical installation to furnish power for pumping has been partly completed. The steam pumps have been removed and three new pumps to be electrically driven have been placed.

The output was 38,680 tons, and 8,433¼ lb. of explosives were used; 4.6 tons of coal being won for each pound of explosive. Ackroyd & Best, and Wolf Safety lamps were used. There were 8051 feet of 12-lb; 846 feet of 18-lb; and 2220 feet of 28-lb. rails used.

Average barometer and thermometer readings.

		BAROMETER	THERMOMETER
October	1913	29.70 inches	54 degrees
November	"	30. "	54 "
December	"	30. "	53 "
January	1914	30.10 "	52 "
February	"	30.30 "	52 "
March	"	30.20 "	53 "
April	"	30.12 "	52 "
May	"	30.14 "	54 "
June	"	29.90 "	53 "
July	"	30.10 "	58 "
August	"	30.05 "	57 "
September	"	29.98 "	56 "

INTERCOLONIAL COAL COMPANY LIMITED.

DRUMMOND MINE—MAIN SEAM AND SECOND SEAM.

This mine produced last year 220,929 tons of coal, and 3,770 tons of fire-clay. No explosives are used in the getting of coal in either of the seams. The coal is gaseous. The workings in main seam are damp, those in the Second seam, dry, inclining to dusty and a system of sprinkling is used. The ventilation and traveling roads in both seams are good. The development work is well in advance of requirements. Levels have been driven through the barrier which divided the property of this Company from that of the Acadia Coal Co., Limited, and coal is being won out of a section that was not easily obtainable by way of Acadia Slope.

Two new pumps of large capacity were installed in the main seam workings.

A brick power-house 60 by 50 feet was built; and a smoke stack 100 feet, 5 feet 6 inches diameter, was erected.

Two new boilers 150 h. p.; two boilers 80 h. p., and two boilers 314 h. p., were placed, and repairs were made to the roof of the Main-seam fan drift.

Part of the above boiler installation is intended to furnish power to unwater the Acadia Mine.

Marsaut safety lamps are used.

There were used 10,467 feet of 18 lb., and 4,196 feet of 12 lb. rails.

Average Barometer and Thermometer Readings.

		BAROMETER	THERMOMETER
October	1913	.....29.60 inches	71 degrees
November	"	.....29.38 "	70 "
December	"	.....29.40 "	67 "
January	1914	.....29.42 "	66 "
February	"	.....29.42 "	66 "
March	"	.....29.03 "	64 "
April	"	.....29.16 "	67 "
May	"	.....29.50 "	67 "
June	"	.....29.72 "	70 "
July	"	.....29.43 "	72 "
August	"	.....29.46 "	74 "
September	"	.....29.38 "	74 "

Appended hereto are tables relating to timber used in the mines in the Pictou District.

TABLE I.

Timber used underground, Acadia Mine.

Class of Timber	Length feet	Diameter Small end inches	Number of pieces	Total Lineal feet
Pit Props	10	5	1,823	18,230
	8	4	14,827	118,616
	7	4	1,810	12,670
	5	4	8,349	41,745
		Total	26,809	191,261
Booms	16	6	56	896
	14	6	19	266
	12	5	7,798	93,576
	10	5	4,400	44,000
		Total	12,273	138,738
Sleepers		Width of face and thickness		
	3½	3½x4	356	1,246
	4	3 x4	400	1,600
		Total	756	2,846

TABLE I.—*Continued.**Timber used underground, Albion Mine.*

Class of Timber	Length feet	Diameter small end inches	No. of pieces	Total Lineal feet
Pit props	20	7	37	740
	10	6	19,569	195,690
	8	5	33,460	267,680
	5	4	966	4,830
		Total	54,032	468,940
Booms	16	6	82	1,312
	12	5½	9,132	109,584
	10	5	29,498	294,980
	8	4½	836	6,688
		Total	39,548	412,564
Sleepers		Width of face and thickness		
	12	4½x5	104	1,250
	4	3 x4	1,318	5,274
		Total	1,422	6,524

TABLE I.—*Continued.**Timber used underground, Allan Mine.*

Class of Timber	Length feet	Diameter small end inches	No. of pieces	Total Lineal feet
Pit props	8	4½	34,076	272,608
	5	4	3,275	655
		Total	37,351	273,263
Booms	20	6	14	280
	16	6	161	2,576
	14	6	41	574
	12	5½	10,276	123,312
	10	5	13,778	137,780
		Total	24,270	264,522
Sleepers		Width of face and thickness		
	3½	4x3½	11,470	40,165
	11	5x4½	437	4,807
		Total	11,907	44,952

TABLE 1.—Continued.

Timber used underground, Vale Mine.

Class of Timber	Length feet	Diameter small end inches	No. of pieces	Total Lineal feet
Pit props	6	4	4,055	24,330
	5	4	31,908	159,900
		Total	35,963	184,230
Booms	15	6	2,002	30,030
	13	6	170	2,210
		Total	2,172	32,240
Sleepers		Width of face and thickness		
	3½	4x3	1,999	6,998
		Total	1,999	6,998

TABLE I.—*Continued.**Timber used underground, Drummond Mine.*

Class of Timber	Length feet	Diameter small end inches	No. of pieces	Total Lineal feet
Pit props	5	4	190,585	951,925
	8	4	80,470	643,760
	10		22,048	220,480
		Total	293,103	1,822,165
Booms	10	4½	42,037	420,370
	12	5	17,513	210,162
		Total	59,550	630,532
Sleepers		Width of face and thickness		
	4	3½x4	2,673	10,692
		Total	2,673	10,692

SPECIAL REPORT.

Report of MR. THOMAS BLACKWOOD, *Deputy Inspector of Mines*, Pictou District, on boiler explosion at Drummond Mines.

I have to report a distressing accident which occurred at Drummond Mine, Pictou County, on Thursday morning, April 2nd, 1914, when No. 5 steam boiler exploded.

Two men were instantly killed, and ten injured, five of them fatally.

The exploded boiler was made by the Heine Manufacturing Co., and had been in use for four years. It was loaded to pop at 100 lb. pressure, its safe pressure being 160 pounds.

The boiler was thrown out of place, much damage was done to the boiler-house, railway-cars and tracks, and the surface plant was generally injured. All the smoke stacks were knocked down. The mine was standing for a week after the accident, and at the end of two weeks was again in full operation.

The cause of the explosion is unknown.

Names and occupations of the killed and injured follow:—

Frank Ryan, car-runner, killed; Daniel McMullen, attendant, at slack chute, killed; Arthur McKearney, carter, killed; Emanuel Josey, coal-picker, killed; Lawrence McKenzie, fireman, killed; George Taylor, car-shifter, killed; Benjamin McKearney, fireman, injured; John A. McDonald, injured; A. Little, coal-trimmer, injured; Dan F. Fraser, coal-tipper, injured.

The following is a copy of the verdict of the jury of inquest; "We find that Daniel McMullin was killed at the Drummond Colliery, Westville, on the morning of the 2nd of April, 1914, by the explosion of boiler No. 5. The jury cannot arrive at the exact cause of the explosion, but the evidence would lead us to believe that the boiler plate was not up to the standard.

The Jury would recommend a government inspector of all boilers."

(Sgd.) M. SUTHERLAND, M.D., *Coroner*.

(Sgd.) DANIEL MCINTOSH, *Foreman*.

The following by E. B. PAUL, *Deputy Inspector*, is reported respecting the mines in the Cumberland District, for the fiscal year ended September 30th, 1914.

CUMBERLAND RAILWAY & COAL CO., LIMITED.

SPRINGHILL NO. 2 MINE—SPRINGHILL SEAM.

Operated by the Dominion Coal Co., Ltd.

This mine is in good condition. There are some dry sections which are sprinkled by water conveyed in $\frac{3}{4}$ -inch pipes. The ventilation has been improved and is now satisfactory. The return airways have been enlarged and retimbered and new airways driven. The narrow-work has been kept well ahead and all the travelling-roads are in good condition. The stepping in the fan-slope from the 3000-feet lift to the surface has been completed. A new pump 12 by 18 inches was placed at the 4000-feet lodgment.

Average barometric pressure and temperature.

	BAROMETER	THERMOMETER
October, 1913	31.7 inches	60 degrees
November "	31.4 "	60 "
December "	31.3 "	60 "
January 1914	30.5 "	60 "
February "	31.5 "	60 "
April "	30.5 "	60 "
May "	30.4 "	60 "
June "	30.5 "	70 "
August "	31.4 "	70 "
September "	31.7 "	70 "

There were used 24,478 feet of 40 lb., 5400 feet of 30-lb., 5,250 feet of 18-lb., and 6,300 feet of 12-lb rails.

CUMBERLAND RAILWAY & COAL CO., LIMITED.

SPRINGHILL NO. 3 MINE—SPRINGHILL SEAM.

Operated by the Dominion Coal Co., Limited.

The output of the Springhill Mines, No. 2 and No. 3 last year, was 400,736 tons. Narrow-work in this mine has been kept well in advance. The mine is dusty in sections and is sprinkled by the same system as No. 2. The ventilation and the travelling-roads are good. Marsaut safety lamps are used. There were added

to the equipment one double hoisting engine, 14 by 18 inches; 2 haulage engines 9 by 12 inches and 1 engine 12 by 18 inches; all operated by compressed air. Three boilers were placed to operate compressors of 5000 cubic feet capacity.

Barometric pressure and temperature.

	BAROMETER	THERMOMETER
October 1913	31.1 inches	63 degrees
November "	31.2 "	63 "
December "	31. "	63 "
January, 1914	31.5 "	63 "
March "	30.6 "	63 "
April "	30.4 "	65 "
May "	30.4 "	70 "
June "	30.3 "	70 "
August "	31.3 "	70 "
September "	30.3 "	70 "

Officers.

Malcolm Blue, Resident Manager; W. D. Matthews, Manager; J. C. Nicholson, Assistant Manager; D. McSavaney, Underground Manager; W. A. Wilson, A. K. McLeod, and John Hargreaves, Overmen.

MARITIME COAL RAILWAY & POWER CO., LIMITED

JOGGINS MINES—JOGGINS SEAM.

This mine is worked longwall, by electrically driven coal-cutting machines. The ventilation is good and the mine is in good condition. There is little gas found. Development work is well ahead. The output for the year was 143,193 tons: 14,733 lb. of explosives were used, 9.6 tons of coal for each pound of explosive.

There were added to the plant, 6 electrical motor-hoists of 25 h. p. each, to operate inclines on balances; 1 electric motor-haulage, to operate a main-and-tail haulage on No. 3 level, west; 2 pick-quick rotary-bar longwall mining-machines; 18 h. p. each. One air-hoist 15 h. p., and one electric hoist 30 h. p. were taken out of the mine.

There were used 1762 yd. of 12-lb and 1571 yd. of 26-lb. rails.

Officers.

R. J. Bell, General Manager; Samuel Gray, Assistant Manager; C. J. Kent, Underground Manager; James Fairley, J. Reese, and John Johnston, Overmen.

BLACK DIAMOND MINE—MACCAN SEAM.

Owned and operated by the Maritime Coal, Railway and Power Company.

This mine was in operation about four months during the year. The slope has been driven a distance of 500 feet., the levels are broken off and driven a short distance east and west.

There is very little machinery in connection with this mine: a small upright boiler and engine on the surface and one small pump (underground). The mine was closed August 17th, for the purpose of installing new electric hoisting and pumping machinery.

James Fairley was Underground Manager; 10 men were employed.

THE MARITIME COAL, RAILWAY & POWER CO., LTD.

SILVER LEAF MINE—JOGGINS SEAM.

Operated by the Betts Bros.

The slope is down in the old Joggins Seam about 175 feet; eight men are employed extracting surface pillars that were left in the old No. 2 slope, Joggins Mines. The output is sold to the Maritime Coal Railway and Power Company.

THE PROVINCIAL MINING CO., LIMITED.

GREAT NORTHERN MINE—CHIGNECTO SEAM.

Operated by the McKinnon and Barnes Co.

The slope is down 150 feet; and five men are engaged, driving levels with the intention of extracting pillars, from the Great Northern Mine. There is no machinery at the mine, all the hoisting being done by horse and gin.

ATLANTIC GRINDSTONE & COAL CO., LIMITED.

FUNDY MINE—HARDSCRABBLE SEAM.

This mine was closed in December 1912, and resumed work in September, 1913. It produced last year 859 tons. The water runs

from the mine through a level to high water. The machinery consists of a small upright boiler and a hoisting engine. Three men are employed underground.

MINUDIE COAL CO., LIMITED.

MINUDIE MINE—MINUDIE SEAM.

This mine produced 28,556 tons. It is non-gaseous and the ventilation is good.

There were added to the machinery 1 boiler, 150 h. p.; 1 duplex pump 12 by 5 by 12 inches, capacity 100 gallons a minute; One boiler, 100 h. p., was removed.

There were used 60,000 feet of 12-lb; 15,690 feet of 18-lb., and 900 feet of 38-lb. rails.

Officers.

John S. Barton, General Manager; George Stevenson, Underground Manager; Joseph Barton, and Alex. Stewart, Overmen.

MINUDIE COAL CO., LIMITED.

VICTORIA MINE—VICTORIA SEAM.

This mine produced 33,571 tons. The seam is 2 feet thick and the mine damp. There is no gas. Ventilation is natural assisted by steam jets, there being 18,000 cubic feet of air in circulation. Narrow-work has been kept well in advance.

LAWSON MINE.

This mine is owned by J. T. Smith and operated by Elvin Long & Co.

The slope is down 300 feet, one level is driven 300 feet west. The mine is in good condition and ventilation is adequate.

There are one upright boiler and small hoisting engine on surface, and one small Cameron pump underground. The production was 800 tons.

Appended hereto are tables relating to the mines in the Cumberland District.

TABLE I.
Timber used underground No. 2 Mine, Springhill.

Class of Timber	Length feet	Diameter small end inches	No. of pieces	Total Lineal feet	Description and number of lineal feet of any other kinds of timber used underground
Pit props	4	4	5,946	23,784	Spruce.....
	5½	5	28,398	156,189	Deal..... 15,525
	7	5	3,706	25,942	Plank..... 11,265
	8	5	13,980	111,840	Boards..... 38,365
	10	5	30,000	300,000	Scantling..... 1,480
	12	5	2,911	34,952	Sq. Timber.... 13,786
Booms	10	6	34,570	345,700	Hardwood:
	12	6	310	3,720	Deal..... 20,000
	14	6	3,704	51,856	Plank..... 2,000
	10½	9	2,204	23,342	Boards..... 20,500
					Sq. Timber.. 4,414
Split booms		3	20,687	206,870	Pine:
	12	10	1,696	20,352	Deal..... 858
	14	10	863	9,082	Plank..... 7,806
	16	9	19	304	Board..... 4,149
Sleepers		Width of face and thickness			Sq. Timber.. 659
		5"x9"		27,455	Hemlock:
		5"x3"		187,511	Deal..... 4,550
					Plank..... 23,471
					Boards..... 133,058
					Sq. Timber... 5,063
					Scantling.... 2,000

TABLE I.—Continued.

Timber used underground No. 3 Mine, Springhill.

Class of Timber	Length feet	Diameter small end inches	No. of pieces	Total Lineal feet	Description and number of lineal feet of any other kinds of timber used underground
Pit props	4	4	3,299	13,196	Spruce: Deal..... 2,662 Plank..... 5,632 Boards..... 14,188 Scantlings... 691 Sq. Timber .. 6,892
	5½	5	14,917	78,094	
	7	5	1,853	12,971	
	8	5	6,939	55,512	
	10	5	10,799	107,990	
	12	5	2,910	34,920	
Booms	10	6	17,385	172,850	Hardwood: Deal..... 12,339 Plank..... 1,841 Boards..... 15,910 Sq. Timber .. 4,414
	12	6	620	7,440	
	14	6	1,852	25,928	
	10½	9	2,204	23,342	
	12	10	1,500	18,000	
Split booms		3	10,245	102,540	Pine: Deal..... 429 Plank..... 3,902 Boards..... 2,074 Sq. Timber .. 300
Sleepers		Width of face and thickness			Hemlock: Deal..... 1,776
		5"x9" 3"x5"	13,727 93,755		Plank..... 14,233 Boards..... 66,529 Sq. Timber .. 2,531 Scantling.... 1,258

TABLE I.—Continued.
Timber used underground Joggins Mine.

Class of Timber	Length feet	Diameter small end inches	No. of pieces	Total Lineal feet	Description and number of lineal feet of any other kinds of timber used underground.
Pit props	6	6	12,22	73,320	Butts 291,820 3½x5— 10,213 1-0 lin. ft. Lumber 4,614 feet
	7	6	62	434	
	8	6	50	400	
	3	6	33	99	
Booms	10	8	4,933	49,330	
	13	8	1,060	13,780	
Sleepers	Length	Width of face and thickness	No. of Pins		
	4	4	9,327	37,308	
	6	6	4,952	29,712	

Timber used underground Minudie Mine.

Class of Timber	Length feet	Diameter small end inches	No. of pieces	Total Lineal feet	Description and number of lineal feet of any other kinds of timber used underground.
Pit props	3	4	5,041	15,123	300' of 3" deal 800' of 1" boards
	3½	4	271	948	
	4	5	38,576	154,304	
	6	6	1,869	11,214	
Booms	8	7	695	5,560	
	10	8	149	1,490	
	12	8	234	2,808	
Sleepers		Width of face and thickness			
	4	5"x3"	1,366	5,464	
	6	5"x3"	25	150	

TABLE I.—*Continued.*
Timber used underground Victoria Mine.

Class of Timber	Length feet	Diameter small end inches	No. of pieces	Total Lineal feet	Description and number of lineal feet of any other kinds of timber used underground.
Pit props	3	4	67,472	202,416	500' spruce deal 3" thick 1000' refuse pine 1" boards
	3½	4	7,891	27,618	
	4	5	21,189	84,765	
	5		47	235	
	6	6	1,368	8,208	
Booms	8	7	192	1,526	
	10	8	84	840	
	12	8	45	540	
Sleepers		Width of face and thickness			
	4	5"x3"	1,400	5,600	
	4	5"x4"	1,200	4,800	
	6	5"x4"	160	960	
	6	5"x3"	60	360	

TABLE II.

DOMINION COAL COMPANY, LIMITED.

Determination of Temperature, Pressure and Humidity.—Springhill No. 2 Colliery.

DATE	HOUR	TEMPERATURE						BARO-METER READINGS	PER CENT. OF RELATIVE HUMIDITY		GALLONS WATER PER 100,000 CU. FT. OF AIR		Cu. Ft. of Air Circulating per Minute	Gallons of Water Deposited in Mine per Minute	Gallons of Water Absorbed per Minute	
		INTAKE			RETURN				In'tk.	Ret.	Intake	Return				
		Wet	Dry	Diff.	Wet	Dry	Diff.									
																A.M.
Oct. 4	7.30	62½	64½	2	59	59	0	29.25	88	100	8.28	8.0	109,000	0.31	.....	1.4
" 11	7.30	58	62	4	60	61	1	29.8	77	94	6.71	8.0	"	.....	.....	0.62
" 18	7.30	63	65	2	64	65	1	29.62	88	94	8.57	9.14	"	.....	.....	.....
" 25	7.30	61	63	2	59	60	1	29.55	88	94	8.0	7.71	"	0.31	.....	.....
Nov. 1	7.30	28	32	4	56	57	1	29.58	55	93	1.71	6.85	"	.....	.....	5.6
" 8	7.30	52	56	4	55	56	1	29.72	75	93	5.42	6.71	"	.....	.....	1.4
" 15	7.30	32	38	6	56	57	1	29.46	56	93	2.14	6.85	"	.....	.....	5.1
" 22	7.30	42	46	4	55	55	0	29.8	73	100	3.71	7.0	"	.....	.....	3.5
" 29	8.15	28	30	2	52	52	0	30.25	69	100	2.0	6.28	"	.....	.....	4.6
Dec. 6	8.00	22	24	2	51	52	1	29.15	58	93	1.14	5.85	"	.....	.....	5.1
" 13	8.30	24	26	2	50	50	0	29.44	58	100	1.43	5.85	"	.....	.....	4.82
" 20	8.15	27	29	2	49	50	1	29.5	67	93	1.85	5.42	"	.....	.....	3.89
" 27	8.45	24	26	2	49	50	1	29.2	58	93	1.43	5.42	"	.....	.....	4.30
1914. 3	10.00	29	31	2	48	48	0	29.95	72	100	2.14	5.42	"	.....	.....	3.58
Jan. 10	10.15	33	35	2	48	48	0	28.6	80	100	2.71	5.42	"	.....	.....	2.95

"	17	9.30	27	29	2	47	47	0	29.25	67	100	1.85	5.28	"				3.73
"	24	9.30	38	40	2	48	48	0	29.45	84	100	3.42	5.42	"				2.18
Feb.	14	10.00	16	18	2	45	45	1	29.80	46	92	0.85	4.42	"				3.89
"	21	10.45	4	6	2	44	44	1	29.70	34	92	0.57	4.28	"				4.04
"	28	9.30	32	34	2	45	45	1	29.65	79	92	2.57	4.42	"				2.02
Mar.	28	7.30	31	34	3	50	49	1	29.90	71	93	2.42	5.42	"				3.42
April	4	10.30	24	28	4	46	46	1	29.50	40	93	0.85	4.85	"				4.06
"	11	8.00	40	45	5	50	50	0	29.70	66	100	3.28	5.85	"				2.80
"	18	8.30	36	42	6	48	48	0	29.60	60	100	2.57	5.42	"				3.01
"	25	7.45	32	36	4	47	47	1	29.90	66	93	2.42	5.0	"				2.80
May	2	8.30	37	37	0	50	50	0	28.80	100	100	3.71	5.85	"		0.46		2.33
"	23	7.30	60	64	4	56	57	1	29.3	77	93	7.28	6.85	"				2.33
"	30	8.45	52	60	8	56	57	1	29.8	58	93	4.71	6.85	"				3.27
June	6	10.30	44	52	8	54	55	1	29.3	54	93	3.42	6.42	"				0.77
"	20	9.30	60	68	8	57	58	1	29.3	60	93	6.42	7.14	"				1.93
July	4	8.00	54	60	6	57	58	1	29.7	66	93	5.42	7.14	"	112,700			
"	18	8.00	72	76	4	63	64	1	29.1	79	94	11.0	8.85	"	116,600			
"	25	8.30	65	71	6	62	63	1	29.3	69	94	8.14	8.57	"				0.49
Aug.	8	8.30	64	70	6	62	62	0	29.6	69	100	7.85	8.85	"				1.16
"	15	8.00	62	67	5	62	63	1	29.5	73	94	7.57	8.57	"				1.16
Sept.	5	2.45	59	71	12	62	63	1	29.3	47	94	5.57	8.57	"				3.49
"	12	7.00	47	50	3	59	59	0	29.6	90	100	4.71	8.0	"				3.83
"	19	8.30	52	58	6	59	59	0	29.6	66	100	5.14	8.0	"				3.04
"	26	10.45	55	58	3	61	61	0	29.5	81	100	6.28	8.57	"				2.66

ACCIDENTS.

Coal Mines of Nova Scotia, Cape Breton Southern District, for fiscal year ended September 30, 1914.

Date	Mine	Name	Age	Remarks.
1913				
Oct. 2	Dom. No. 2	Simon Binder	18	Driver. Jammed between box and prop. Pelvis fractured.
" 8	" 5	Henry Clard	19	Driver. Jammed between roof and box. Back injured.
" 9	" 2	Wasył Stostak	30	Shooter and Loader. Fall of coal and stone. Fatal.
Nov. 13	" 2	Ernest Goddard	34	Miner. Fall of stone at face. Leg fractured.
" 13	" 2	Joseph Chisholm	17	Driver. Struck by stone from shot, wound in side.
" 23	" 8	William Morrison	74	Timber-man. Struck by box. Fatal.
Dec. 23	" 7	Hugh McIsaac	33	Machine-man. Pelvis and hip injured
1914				
Jan. 12	" 2	James McKillop	35	Miner. Fall of coal at face. Injury to head, bladder and pelvis.
Feb. 5	" 2	M. Rommanuk	38	Miner. Fall of stone at face, foot crushed.
" 24	" 4	John R. Murphy	43	Miner. Fall of stone at face. Fatal.
Mar. 7	" 6	Alex. Smith	21	Helper. Fall of coal at face. Leg broken.
" 10	" 9	Richard Knight	31	Shooter and loader. Fall of stone at face. Compound fracture of leg.
" 16	" 2	John M. McNeil	38	Miner. Fall of coal at face. Fatal.
" 23	" 2	Flie Busin	22	Loader. Fall of stone at face. Compound fracture of leg.

"	24	"	"	10	Wm. Reid	63	Timberman	Struck by trip, collar bone, shoulder blade and ribs broken, also injured internally.
April	17	"	"	2	Alex. McGillivray	18	Driver.	Caught between collar-boom and box. Partial dislocation of last dorsal vertebrae.
"	27	"	"	2	Willoughby Ridge	44	Shooter and loader.	Fall of stone and coal at working face. Leg and arm broken.
May	7	"	"	8	Malcolm McPherson	43	Miner.	Premature shot. Dislocation and fracture of both knees.
"	29	"	"	7	August Ghysels	28	Miner.	Fall of stone at face. Fatal, accidental.
June	1	"	"	7	James I. Cook	34	Miner.	Fall of stone. Back broken. Fatal.
"	3	"	"	22	Angus Holmes	58	Road-maker,	fell striking head on rail. Skull fractured. Fatal.
"	22	"	"	8	Martin Campbell	64	Miner.	Fall of coal at face. Three ribs and back injured.
July	31	"	"	7	Andrew Neary	17	Splint-picker,	fell under moving car. Leg cut off. Accidental death.
Aug.	24	"	"	2	Geo. H. Sidebottom	40	Miner.	Fall of coal. Leg broken.
Sept.	5	"	"	10	John O'Connor	21	Shooter and Loader.	Fall of stone at longwall face. Body crushed. Fatal.
"	7	Broughton			Evla Owewk	26	Pusher	Struck by full box. Skull fractured and leg broken.
"	21	Dom. No.	4		Philip Baldwin	30	Shooter and Loader.	Fall of stone. Fatal
"	21	"	4		Wilson Grant	30	Shooter and Loader.	Fall of stone. Foot bruised.
"	25	"	2		Gussipe Pole	29	Shooter and loader.	Fall of stone. Fractured thigh and scalp wound.

ACCIDENTS.—(Continued).

Coal Mines of Nova Scotia, Cape Breton, Northern District, Year ended September 30th, 1914.

Date	Mine	Name	Age	Remarks.
1913				
Oct. 7	Dom. No. 15	Stainslaw Zyales.....	24	Shotfirer. Killed by a fall of stone.
" 8	" 1	Anton Gucerdiero.....	24	Jaw broken, by being jammed between box and rib.
" 8	Sydney " 3	Ambrose Sampson.....	23	Shooter and loader. Leg broken by a fall of stone.
" 21	Dom. No. 14	Geo. E. Everby.....	30	Miner. Leg broken by a fall of stone.
" 29	" 12	Charles Berger.....	38	Miner. Foot injured by a fall of stone.
Nov. 1	Sydney " 3	Alexander Bond.....	21	Machine-helper. Killed by a fall of coal.
" 3	Dom. No. 12	Frank Bernardo.....	28	Miner. Collar bone broken by a fall of coal.
" 5	Sydney " 3	John Blinkhorn.....	30	Shooter and loader. Both legs broken by a fall of coal.
" 6	Dom. " 14	Alex. Marquard.....	18	Driver. Broke his arm lifting box.
" 13	Sydney " 3	Neil Soolker.....	27	Chain-runner. Leg broken by being struck by rope.
" 14	Dom. " 1	Aggro Guisippe.....	24	Shooter and loader. Leg broken by a fall of coal.
" 14	" 4	Alex. Leblanc.....	21	Chain-runner. Leg broken. Struck by box.
" 25	" 12	Henry Merrill.....	36	Miner. Leg broken by back-balance.
" 26	" 12	James Mitchell.....	34	Miner. Collar-bone broken by fall of coal.
" 26	Sydney " 2	Donald McNeil.....	60	Shiftman, Ribs broken by a fall of stone.
Dec. 5	Dom. " 16	Job Jacobs.....	25	Leg broken by being struck by cage.
" 8	Sydney " 5	David Clelland.....	38	Miner. Leg broken by a fall of stone.
1914				
Jan. 8	Dom. " 1	Thos. Bourque.....	16	Brake-holder. Arm broken by being caught between box and cage.

"	13	Sydney	"	3	Henry Pardy.....	26	Shooter and loader. Leg injured by fall of coal.
"	16	Dom.	"	1	John Kroput.....	22	Loader. Killed by fall of stone.
"	21	"	"	1	Demetris Boviada.....	29	Landing tender. Killed by being crushed between boxes.
"	26	Sydney	"	2	Albert Coswell.....	18	Laborer. Fingers injured by being jammed in engine.
"	26	"	"	1	George H. Vickers.....	40	Miner, leg broken by fall of coal.
Feb.	5	Dom.	"	17	Maurice Cottane.....	33	Laborer. Back injured by a fall of stone.
"	9	Sydney	"	1	Sydney Trowbridge.....	45	Miner. Leg broken by a fall of stone.
"	11	Dom.	"	12	Thomas Gaskin.....	33	Cage-runner, Killed by a fall of stone.
"	19	"	"	12	George Hutchinson.....	25	Machine-helper. Leg broken by a fall of coal.
Mar.	5	Sydney	"	5	Thomas Yates.....	46	Miner. Back injured by a fall of stone.
"	6	Dom.	"	16	Wm. C. Morrison.....	40	Laborer. Arm broken by being caught between boxes.
April	4	"	"	12	Peter McPherson.....	38	Shotfirer. Leg and ribs broken by a fall of stone.
"	11	"	"	12	Murdock McQuarrie.....	18	Cage-runner. Leg broken by being struck by haulage rope.
"	22	Lloyds	"	"	W. R. Coll.....	36	Overman Leg broken. Caught in haulage.
May	6	Dom.	"	16	Allan D. Gillis.....	18	Driver. Leg broken by being struck by box.
"	7	"	"	12	Wm. Connors.....	24	Brusher. Stepped on bull-wheel and had leg broken.
"	13	Sydney	"	5	John Dillon.....	33	Shiftman, Ribs broken by a fall of stone.
"	13	"	"	5	George Collier.....	27	Road-maker. Spine fractured by a fall of stone.
"	23	Dom.	"	1	Jerry Dumphy.....	69	Trapper. Ribs broken by being struck by box.
"	29	"	"	12	John Nicholaski.....	40	Miner. Leg broken by a fall of coal.
June	18	MacKay	"	"	David Mamigeust.....	20	Shiftman. Back and leg broken by a fall of stone.
"	24	Dom.	"	15	Ferdinand Leemore.....	21	Loader. Killed by a fall of stone.
"	25	"	"	16	Archd. McLean.....	39	Miner. Hip injured, Jammed between cage and rib.
July	3	"	"	14	John McQuarrie.....	24	Shooter and loader. Back injured by fall of coal.
"	6	Lloyds	"	"	Aaron Feander.....	17	Pusher. Leg broken by full box.
"	11	Scotia	"	"	Robert Moren.....	23	Chain-runner. Pelvis broken by being run over by box.
"	15	Dom.	"	1	Charles Munro.....	32	Miner. Leg and ribs broken by stone falling at face.
"	16	Scotia	"	"	William Costello.....	25	Shooter and loader. Ankle injured by a fall of stone.

ACCIDENTS.—(Continued).

Coal Mines of Nova Scotia, Cape Breton, Northern District, Year ended September 30th, 1914.

Date	Mine	Name	Age	Remarks
1914				
July 24	Dom.	Paul Derales.....	21	Shooter and loader, Foot injured by a fall of stone.
" 23	"	James Pidey.....	48	Miner. Leg and ribs broken by pot falling from face.
" 24	"	Gustave Dogal.....	42	Shooter and loader. Pot fell from roof and injured pelvis.
" 25	"	Philip Bond.....	35	Machine-runner. Killed by a fall of stone.
" 31	"	Alex. McLean.....	30	Machine-runner. Legs broken by a fall of stone.
Aug. 19	Scotia	James McCready.....	38	Miner. Back and hip injured by a fall of stone.
" 19	"	Harry Dakin.....	23	Pusher, Back injured by a fall of stone.
" 20	Dom.	John A. Roy.....	48	Head and body injured by boxes.
Sept. 11	Florence	Alex. Forgan.....	42	Miner. Hip injured by a fall of stone.

ACCIDENTS.—(Continued).

Coal Mines of Nova Scotia, Pictou District, Year ended September 30th, 1914.

Date	Mine	Name	Age	Remarks.
1913				
Oct. 4	Vale	Andrew Reeves.....	45	Miner. Arm broken by fall of stone.
" 15	Allan	Ernest Maguire	32	Miner. Head, face, and back injured by fall of coal.
" 28	Albion	Daniel Taylor	67	Laborer. Killed on surface by train.
Dec. 16	"	John Frye.....	38	Miner. Killed by riding trip.
" 17	Allan	Wm. Stently	25	Loader. Killed by a fall of roof coal.
1914				
Jan. 20	Acadia	Hugh Muir	51	Miner. Ribs broken.
" 26	Drummond	Dan O'Handley		Sheet-turner. Leg broken and face cut by trip.
Feb. 19	Albion	Geo. Corell	38	Shiftman. Leg broken. Caught between rib and box.
" 21	Allan	Noble Workes	20	Tipple-tender. On bank. Arm injured by run-away box.
" 23	Vale	Bernard McQuire	19	Driver. Died Feb. 28th of injuries. Struck by empty trip.
Mar. 2	Allan	Stewart Sparks		Miner. Injured by horse. Leg broken.
" 7	Drummond	Percy Harris		Miner. Slightly injured by a fall of stone.
" 20	Albion	Alex. Jamieson	18	Cage-runner. Killed by Cage.
" 20	"	Richard Medius	29	Loader. Breast injured, between box and prop.
" 26	Albion	Dominick VanLarken...	42	Miner. Leg broken by cars.
" 2	Drummond	Dan McMillan		Killed by boiler explosion.
" 2	"	Frank Ryan		" " " "
" 2	"	Emmanuel Josey		" " " "

ACCIDENTS.—(Continued).

Coal Mines of Nova Scotia, Piclou District, Year ended September 30th, 1914.

Date	Mine	Name	Age	Remarks.
1914				
Mar.	"	Arthur McKearney.....		Killed by boiler explosion.
"	"	Lawrence McKenzie....		" " "
"	"	Geo. F. Taylor.....		" " "
"	"	Wm. Bett.....		" " "
"	"	Ben. McKearney.....		Injured by boiler explosion.
Apri	"	Angus McDonald.....		" " "
"	"	John A. McDonald.....		" " "
"	"	Eli Little.....		" " "
"	"	Dan F. Fraser.....		" " "
"	17 Albion	Alex. Loys.....	38	Miner. Bone in leg broken by fall of coal.
May	15 Allan	Harley, Ortang.....	20	Driver. Leg fractured by being struck by box.
June	1 Drummond	Charles Smith.....	19	Driver. Slightly injured by box.
"	4 "	Percy Higgins.....	20	Chain-runner. Foot injured by box.
"	10 Albion	Isaac Conway.....	43	Miner. Killed by a fall of top Coal.
"	26 Allan	James Fraser.....	30	Machinist. Scalp injured by falling on top of Cage.
July	6 "	Ernest Reynolds.....	23	Machinist. Eye badly cut by a chip of steel.
"	21 Albion	David Cullen.....	40	Miner. Suffocated by gas.
"	29 Allan	Pat Murray.....		Loader. Ankle broken by fall of coal.
Aug.	13 Albion	Frank Connell.....	32	Miner. Killed by a fall of coal.
"	13 Albion	George Hopkins.....	48	Miner. Leg injured and back bruised by fall of coal.

Coal Mines of Nova Scotia, Cumberland District, year ended September 30th, 1914.

Date	Mine	Name	Age	Remarks.
1913				
Oct. 2	Springhill	Thos. Thibideau	22	Boss driver. Caught between boxes. Hip and leg injured.
Nov. 15	"	Dan McKenzie	52	Timber-carrier. Struck by empty rake. Rib broken.
" 21	"	Allan Thibideau	43	Miner. Struck with prop. Head and neck injured.
Dec. 6	"	Ed. Fagan	38	Miner. Fall of roof coal. Leg broken.
" 9	"	Geo. Canning	41	Miner. Caught by fall of coal against a prop. Back and side injured.
" 12	"	Jas. C. O'Brien	48	Miner. Fall of coal. Head and back injured.
" 23	"	Jas. Calder	40	Miner. Fall of stone. Foot injured.
1914				
Mar. 12	"	Geo. Riley	32	Shiftman. Squeezed between box and slope. Back injured.
April 1	"	Archib Koloch	20	Donkey-driver. Struck by end of rail. Face injured.
" 3	"	Allan Good	20	Cage-runner. Jammed between box and prop. Hand injured.
" 4	"	Jno. F. Brown	36	Brake-holder. Struck by brake bands. Arm broken.
" 13	"	Reuben Spence	45	Miner. Head caught between box and boom. Head cut.
May 11	"	Alex. Rushton	46	Miner. Trolleys went off track. Foot injured.
" 11	"	Jas. Lochard	40	Miner. Trolleys went off track, rib broken.
" 14	"	Pat DeBay	40	Miner. Fall of coal from face. Ankle sprained.
June 11	"	Alex. Hacquoil	22	Point-tender. Fatal injuries. No inquest.

ACCIDENTS—(Continued).

Coal Mines of Nova Scotia, Cumberland District, year ended September 30th, 1914.

Date	Mine	Name	Age	Remarks.
1914				
June 19	"	Jas. Gillis.....	18	Donkey-tender, caught by box. Hand broken.
July 12	"	George Wood.....	35	Timberman. Fell on a rail. Rib broken.
" 15	"	Angus Beaton.....	41	Timberman. Fall of coal. Rib cracked.
" 18	"	Angus McLeod.....	48	Miner. Fall of stone. Finger cut off.
Oct. 24	"	Jas. Fagan.....	28	Miner. Fall of stone. Back injured.
Dec. 15	"	Walter McFarlane.....	40	Miner. Ginney chain broken. Leg broken.
1914				
Jan. 25	"	Wm. G. Brown.....	23	Driver. Caught between box and rib, back and hips injured.
Feb. 21	"	Malcolm McMillan.....	34	Miner. (Boom down on slope, when trollies were going up) Muscles of shoulder torn.
Feb. 21	"	Henry Brown.....	42	Miner. Back injured.
Feb. 21	"	Wm. Follett.....	54	Laborer. Leg injured.
Feb. 21	"	Fred Sampson.....	41	Miner. Back injured.
Feb. 21	"	Anton Smee.....	26	Miner. Back and head injured.
Feb. 21	"	Fred Surette.....	29	Miner. Back and shoulder injured.
Feb. 21	"	Elvin Hyatt.....	38	Miner. Back and leg injured.
Mar. 11	"	Dan McLaughlin.....	62	Shiftman. Struck with a pick. Hand cut.
April 11	"	Jas. Van Sneek.....	32	Miner. Struck with pulley rope. Hand injured.
" 11	"	Ord. McCormick.....	39	Miner. Stone slipped off bench. Hip injured.

May 11	"	3	Edwin Dones.....	48	Miner.	Fall of coal from roof.	Foot injured.
June 3	"	3	Jno. Sweeney.....	22	Driver.	Caught between box and roof.	Arm broken.
July 16	"	3	Geo. Dixon.....	32	General laborer.	Fall of coal.	Back injured.
" 28	"	3	Jos. McDonald.....	38	Miner.	Stepped in front of balance box.	Leg broken.
" 28	"	3	Alex. Blue.....	45	Shiftman.	Rail fell on his foot.	Foot injured.
1913							
Nov. 27	Minudie	1	Stephen Porter.....	38	Miner.	Fall of top coal.	Back and foot injured.
" 28	Victoria	2	Joseph Dawson.....	38	Miner.	Fall of coal.	Head and knee injured.
1914							
Feb. 3	"	2	John Murray.....	55	Miner.	Fall of clay.	Hand injured.
June 19	"	2	Chas. Segal.....	30	Miner.	Fall of clay.	Severe internal injuries.
1913							
Dec. 8	Joggins Mine		Thomas Flemming.....	30	Loader	Runaway cage.	Leg injured.
1914							
April 16	Black Diam.		Jas. Porter.....	30	Miner.	Fatal injuries.	Thawing Samsonite.
Aug. 1	Springhill	2	Rod. McDonald.....	17	Trapper.	Box caught his foot.	Foot injured.
Sept. 2	"	2	Jno. Phillips.....	19	Cage-runner.	Box caught boom.	Hand smashed.
" 19	"	2	Chas. Block.....	38	Miner.	Fall of stone.	Finger broken.
" 22	"	2	Luchlin Greczuk.....	31	Laborer.	Fall of coal down chute.	Back injured.

ACCIDENTS.—(Continued).

Coal Mines of Nova Scotia, Inverness District, for Year ended September 30, 1914.

Date	Mine	Name	Age	Remarks.
1913				
Oct. 8	Inverness	John D. Smith.....	20	While spragging had three fingers taken off.
Dec. 2	"	John W. McKinnon.....	18	Horse fell on him. Broken leg.
" 10	"	George Reners.....	18	Struck by man jumping from rake. Leg bruised.
" 20	"	Angus Ross.....	56	Stepped in front of moving balance box. Body severely injured, proved fatal.
" 27	"	Rene Buydens.....	14	Run over by box. Right leg broken and face bruised.
1914				
Jan. 8	"	Albert Von Volsen.....	16	Slipped on full box. Bruised feet and face.
Mar. 27	"	Victor Large.....	26	Fall of coal. Arm broken.
" 27	"	Gustava Pierard.....	37	Fall of coal. Leg and back bruised.
May 19	"	John A. McIsaac.....	28	Fall of rock. Bruised head and shoulders.
" 20	"	Jacob Jacobi.....	48	Fall of coal. Severe cut on hand.
June 16	"	John C. McNeil.....	21	Stealing ride on trip. Skull fractured, hand crushed.
" 23	"	Hugh McEachern.....	40	Caught between rope and drum. Fingers crushed.
" 25	"	Louis Varince.....	40	Fall of coal. Foot crushed.
" 30	"	Edward Keating.....	26	Cage struck timber, knocking down roof. Fatal
July 31	"	Auben Sairez.....	40	While timbering. Fall from roof struck him. Arm broken.
Aug. 22	"	Harry Poley.....	28	Rake struck and broke bunt-stick and knocked man against coal rib. Internal injuries and hand cut.

Sept. 4	"	Otto Beaumeister	40	Timbering. Fall of coal. Fatal. Verdict Coroner's Jury, Accidental.
" 5	"	D. H. McLellan	26	Riding rake struck fall on slope. Hip dislocated.
" 5	"	Pat. McLellan	30	Riding rake struck fall on slope. Ankle twisted.
" 5	"	Archie McDonnell	40	Riding rake struck fall on slope. Leg fractured. Collar bone broken.
" 21	"	George Cooper	28	While pulling box on cage had fingers broken.

REPORT OF THE
METALLIFEROUS MINES OF NOVA SCOTIA,
YEAR ENDED SEPTEMBER 30, 1914.

BY W. H. PREST.

GOLD.

There were 13,156 tons of ore milled, which yielded 3,158 ounces—an average of 4.8 dwts. a ton.

The ore mined was slightly in excess of the tonnage milled.

Output of ore and yield of gold by Counties:

	Tons	Ounces	Dwt.
Guysboro.....	9,069	1,604	14
Halifax.....	3,192	1,245	15
Queens.....	120	44	15
Victoria.....	775	262	17

In dealing with this report on the individual gold mines, I have thought it advisable to give especial prominence to the following particulars not hitherto covered by previous reports:—

(a) The location of, and means of communication with the mine.

(b) Its geological position.

(c) The main structural peculiarities, not only of the mine, but of the district immediately adjoining.

I am also directing attention to rich float and undiscovered leads, to show the fallacy of the idea generally prevalent, that the auriferous districts of Nova Scotia contain no further resources capable or worthy of development. In almost every district large numbers of rich gold-bearing boulders have been found, indicating the existence, not far away, of leads of attractive value. A fact of some importance may be here mentioned, that is, the richer veins are nearly always on the steepest side of the anti-clinal except, in the cases of fissure veins which are distributed indiscriminately.

In confutation of the once prevalent idea that Nova Scotia gold is found, comparatively speaking, only as surface deposits, I give two vertical sections, (See insert). These show the geological horizon of a number of the gold districts. They show conclusively that the present level of these deposits is only the result of unequal elevation and subsequent erosion. It will be seen that these mineralized folds or domes are gold-bearing between a depth of 17000 ft. below the base of the Slate Division and a point about 4000 ft. above. West Gore occupies the highest position, and Moose River the lowest. Throughout this vast thickness, veins of variable value are found, no horizon being noted for decidedly greater values than others. One peculiarity is, that the nearer the gold-bearing zones are to the Upper Slate Division, the more numerous and valuable are the cross (or fissure) veins, until the highest of these gold-bearing domes contains almost exclusively fissure-veins, or small bedded veins, closely connected with fissures. Examples of these latter are Fifteen Mile Brook, Brookfield, Blockhouse, and West Gore.

A special example of the effects of past erosion is seen in the vertical section of Caribou Mines, given here. (See insert). It shows that the presence of values at the present surface is merely because the dome has been eroded to that level, and that the probability of paying-leads being present at 16000 feet lower, is just as great as at Moose River, which has high values at that geological horizon.

Crushing has been done at the following Mines during the past year.—

DISTRICT	OPERATORS	COUNTY
Oldham	Donaldson Reeves and others,	Halifax
Oldham	John and Alex. Greenough . . .	"
Montagu	Loon Brook Mining Co., Ltd..	"
Lake Catcha	Petpeswick Mining Co., Ltd..	"
Caribou	Caribou Gold Mines Ltd.	"
Moose River	George Cameron and others. . .	"
Tangier	Dominion Mining Co.	"
Goldenville	Goldenville Mining Co	Guysboro
Isaac's Harbor	Stormont Mining Co.	"
Seal Harbor	D. McAskill and others.	"
Fifteen-Mile Brook	Switzer Mining Co.	Queens
Moose River	Stillwater Mining Co.	Halifax
Middle River	Bras d'Or Mining Co.	Victoria

Prospecting and development work have been carried on at the following Mines.—

DISTRICT	OPERATORS	COUNTY
Gold River	Messrs. Verge & Croft	Lunenburg
Montagu	Golden Group Mining Co.	Halifax
Lawrencetown	McMillan & Shaw	"
Cow Bay	Albert Negus	"
Head of Chezzetcook	Geo. J. Hiseler	"
Caribou	Messrs. Hall & Hilchey	"
Moose River	Matthew J. Higgins	"
Mooseland	Reynolds and others	"
West River, Sheet Harbor	W. J. Jemmison and others	"
Malaga	E. S. Henley and others	Queens
Forest Hill	Arthur McNaughton	Guysboro

The Following is a Detailed Report of the various Gold Mines.—

HALIFAX COUNTY.

CARIBOU DISTRICT.

Location.—Five miles from the line of the Halifax & Eastern Railway and South of the Musquodoboit Valley.

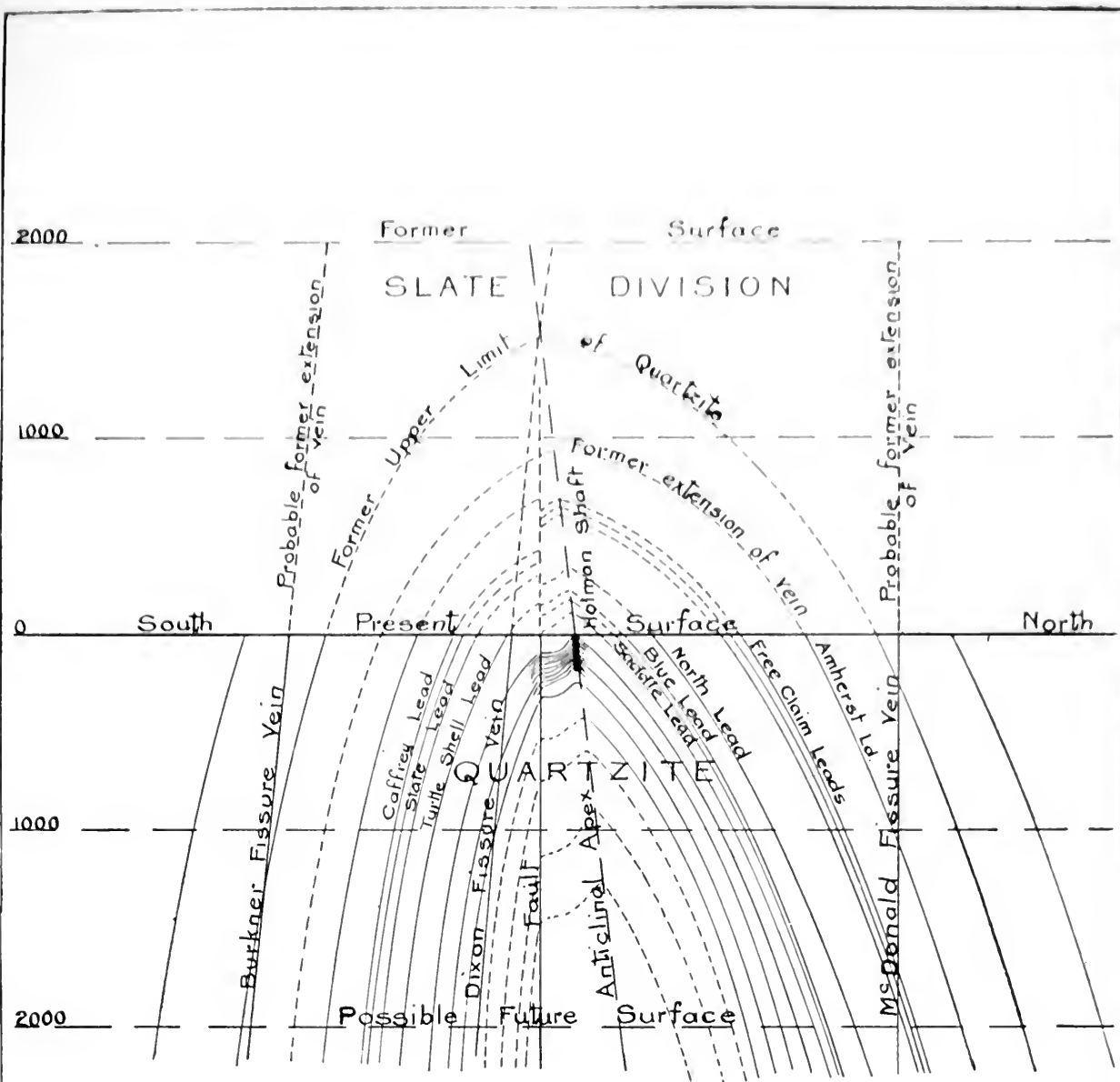
Communication.—Daily mail.

Geological position.—Occupies an elliptical and well formed dome on the western extension of the Cochran Hill anticlinal. It lies less than 1000 feet below the base of the Upper Slate Division, a strong contrast to the neighbouring Moose River Mine, the horizon of which is over 17,000 feet below the base of the slate division: being the lowest of any gold district in Nova Scotia.

Structure.—The fold here is gently rounded and unbroken by serious displacements. The north dip is slightly greater than the south dip, which however, becomes steeper with depth. The veins on both sides are productive, and valuable fault-veins such as the Lake Lode and the Dixon Lead have also been worked.

Holman Mine.—Manager C. V. Holman. Foreman, George Lawlor: employees, 16 men, 9 being underground.

Production for the last fiscal year, 685 tons, of ore which yielded 387 ounces of gold.



THREE STAGES IN EROSION
CARIBOU MINES

Vertical section showing effects of erosion and
developments caused by further erosion

Scale 1000ft. to inch

W. H. PREST.

Surface plant.—One 60 h. p. boiler, 2 engines, 2 steam hoists, and 1 compressor, originally of 4-drill capacity. The mill of 10-1000 lb. stamps, was described in the annual report for 1913.

Underground.—A new feature in the underground work in this district is the sinking of a vertical shaft in the centre of the dome. This shaft is now down 149 feet. Crosscuts have been driven from the 100-foot level, 125 feet to the south and 249 feet to the north. Drifts from this level are in to the west 80 feet and to the east 390 feet. Most of the present work is being done to the east and north.

No work has been done on the 40-foot level since last year. Much ore has been taken from the south side of the apex. The width of the stoping across the apex of the Ross and Reliable leads is about 300 by 45 feet. The leads, as a rule, are thicker on their north legs than on their south legs. In the westerly extension of the west drift, the Ross and Reliable leads, about 3 feet apart, give from 5 to 42 inches of quartz.

Three vertical faults run almost parallel to the anticlinal apex, but interfere little with the work. One fault, containing a little gold bearing ore, points in the direction of the Dixon Fissure—an indication that it is a continuation of that vein.

The shaft is in fair condition, and timber good. Little timber is needed below, pillars being substituted, especially on the saddle where much rock is being stowed in the open spaces. While the surface to the north and south shows a total of about 38 or 40 leads in a distance of about 2000 feet. This vertical shaft 149 feet deep has already revealed 27 veins, or one to each 5 1-2 feet; many of them gold-bearing. It is proposed to continue this work of shaft-sinking and cross-cutting. The sinking especially is highly commended.

DIXON MINE.

Manager, C. V. Holman; Foreman, H. Dixon.

Employees: 20; 13 being underground.

This mine has a good record, and should be at the beginning of a better one, as it is far from being worked out.

Production.—For the last fiscal year 164 tons of ore which yielded 96 oz. 9 dwts. of gold.

Surface.—The mill, shaft house, and shaft, have been put in good condition. Power Plant consists of a 35 h. p. boiler, and a 25 h. p. engine. These run a Fairbanks mine pump, a Northey feed-pump and a steam hoist at No. 3 shaft, all operated by steam

from the mill. The mill contains ten 750 lb. stamps with two electroplated and one plain copper-plate to each battery.

Prospecting.—Norman Hall and James Hilchey have uncovered, since February, six or seven leads to the east of the Holman mine. Three of these are south of the anticlinal and four to the north. Of these to the north, one lead of 3 to 4 inches about 125 feet from the apex, shows excellent nuggety ore. The two next north, at 225 feet are in one belt and give nearly one foot of crushing, also showing free gold. Striking this belt a little farther east, is a seven-inch angular, which promises well in free gold. It apparently cuts all the three leads last mentioned. Rich float, found by the late Robt. Wright, about 250 feet east of the Hilchey prospect, indicates the existence of another valuable vein yet undiscovered. Other rich float found near the road south of Mud Lake and also near the McLeod Lake denotes still other hidden veins, which future work may add to the resources of Caribou.

COW BAY.

Location.—On the Eastern-Passage Road, eight miles from Dartmouth.

Communications.—Daily mail, coach and telephone.

Geological position.—At the junction of the Quartzite and overlying slate divisions, as at Blockhouse, and not on a special dome as are most other Nova Scotian gold districts.

Structure.—Consists of many vertical cross-veins, mineralized like the Blockhouse veins by their intersection with belts of heavily mineralized grey slate. The veins are rather difficult to work, but some high values have been obtained.

Recent Work.—A new 10 or 12 inch vein was found by Albert Negus last December, a half mile north-east of the 10-stamp water-mill. A two-ton test was crushed at Montagu, yield unknown. Further work of prospecting will be done in stripping and testing the lead.

This district contains 9 or 10 vertical cross-leads about 6 of which contain gold. The mill is in fair condition.

HEAD OF CHEZZETCOOK DISTRICT.

Location.—Lies on the eastern post road about 21 miles from Halifax and on the line of the Halifax & Eastern Railway.

Communications.—By water, coach, telephone, and daily mail.

Geological position.—On one of the Lawrencetown folds, being the fold running next north of Lake Catcha, horizon being more than 4000 feet below the base of the slate division.

Structure.—This has not been well defined, but consists of main or bedded veins parallel to the anticlinal. All, so far opened, 7 or 8 in number, are on the south or steepest side of the anticlinal. A fissure is also claimed as existing there, but I did not see it.

The Hiseler property was the only one worked in this district during the past year. G. J. Hiseler had 3 to 6 men employed in prospecting, and sinking on the leads already found. Among those already opened is the Railroad lead, 8 to 12 inches thick, showing free gold. A lead a little farther north is 6 inches thick and another is 4 inches, with good working belts and free gold. A 12-inch lead north of the post road, and another of 3 inches are both claimed to be gold-bearing.

A test of a few tons from the 6-inch lead is said to have given 1 ounce per ton. Several tons from the Railroad lead are ready for crushing.

At intervals during the last 40 years, many rich boulders from a 5-inch lead were found 400 or 500 feet south of the road. Much work has been done in search for this lead, but without system. No records or plans have been kept, therefore the past work can give no guidance to future operators.

LAKE CATCHA DISTRICT.

Location.—Five miles south of the post road down the Eastern Shore, and 25 miles from Halifax. The seaport of Chezzetcook is 3 miles distant.

Communications.—Daily coach and telephone to Chezzetcook, and tri-weekly mail thence to the mine.

Geological Position.—Occupies a dome on the Salmon River fold about 4600 feet below the base of the Slate Division.

Structure.—Owing to the unequal stress brought on it by the bending of the anticlinal, this dome is much faulted. The faults in the Oxford Mine are both right and left-hand while from there west, all are right-hand faults as far as is known. This complication of faults makes the tracing of leads a difficult matter, affecting all the operations of mining to a serious degree. This is luckily offset to a considerable extent by the high value of the ore. The productive leads are all on the north side of the saddle.

OXFORD MINE.

Manager, Frank G. Stevens. Foreman, Wm. Anderson.

Employees, 18 to 20: 12 being employed underground.

This mine has had a good record, having paid dividends for a number of years and many leads yet remain almost untested. After being shut down all winter, work was started in April.

Production.—For the past year, 1106 tons of ore yeilding 387 ozs. of gold, were mined.

Surface.—Little has been done except the building of a new shaft-house over the new shaft on the Picayune lead.

Underground.—The new shaft on the Picayune is now down about 25 feet. It is intended to be the main shaft. The Picayune is the only lead from which ore is taken, and at present is being worked through a crosscut from the 350-foot level of the Coleman lead. The distance between them is 400 feet; and all ore and rock is taken on a tramway to the Coleman shaft. This shaft is old but the timbering is still serviceable, the cable nearly new, and clamps and other gear is in good condition. Eight leads from 1 to 4 inches have been cut in the crosscut, and one lead beyond the Picayune. The cost of tramming, and the want of ventilation, has prompted the sinking of a new shaft. The Picayune on the surface is 3 inches thick. At the 350-foot level, it is 10 inches thick, at the end of the 80-foot west stope and 1 inch at the end of the 110-foot east stope. The Picayune paystreak seems here to dip to the west. The working belt is 5 feet thick. So large a quantity of waste rock makes its disposal expensive. This is balanced, however, by the high value of the ore.

Compressed-air runs two hammer-drills, which the forman says do better work than any drills he has ever handled.

Other work.—Early in the year, J. B. Neily began the erection of a mill in the western part of the district, on the Cooper Angular property; but the work has been discontinued. This district appears to be one of great promise. Judging by the quantity of rich drift, at least three veins of high grade ore remain to be uncovered. One of these, the Waterhole lead, has thrown a great quantity of very rich ore. The other two farther east are smaller, but very rich, and have so far baffled all attempts to find them. At the Waterhole, the leads curve to the south and are much broken by faults. A thorough knowledge of these faults is a very necessary preliminary to success in prospecting this locality.

LAWRENCETOWN DISTRICT.

Location.—At Minesville, about 3 miles south of the post road, down the Eastern Shore, and about 14 miles from Halifax.

Communication.—Daily Coach.

Geological position.—At the junction of two anticlinal folds running west from Lake Porter and the head of Chezzetcook. Horizon about 8000 feet below the base of the slate division.

Structure.—Like Moose River, it lies at an anticlinal junction which forms several corrugations, especially on the south side and at the Shanghai Mine. Around these cluster many gold bearing leads. Many faults break the continuity of the leads and folds, and until these are investigated and mapped, no permanent programme for regular mining can be possible.

No mines are working here, and even the prospecting by McMillan, Shaw and Thompson has been stopped. David Thompson opened a small lead at the bridge, and two more near the school house and the Shanghai Mine. McMillan and Shaw also have opened or reopened a few good leads, but with unsatisfactory results. Want of funds being the chief drawback.

Prospects.—This district has been noted for the quantity or rich float found. On the east side of the river, a 10-foot boulder of rich ore was found many years ago surrounded by gold-bearing drift, which milled \$3.00 per ton. On the same side of the river, several smaller but richer boulders were found, the source of which, like the others, has never been found. On the west of the river near the old Shanghai and Belt Mines, much float, from rich but still hidden veins, has been found. To the west of Gammons Lake there is also rich float. Former prospecting, as usual, was conducted in a spasmodic and haphazard way, no plans nor records being kept. Each newcomer therefore starts with very little to guide him.

MOOSE RIVER DISTRICT.

Location.—Seven miles southwest of Caribou Mines and 13 miles from the Halifax & Eastern Railway at Musquodoboit.

Communication.—Tri-weekly coach from Middle Musquodoboit, 22 miles from Tangier via Mooseland.

Geological position.—On a double fold at the junction of the westerly extension of the Fifteen Mile and Beaver Dam anticlinals. It occupies the lowest geological horizon of any gold mine in Nova Scotia, being over 16,500 feet below the neighboring

Caribou Mines and over 17,000 feet below the base of the slate division of the gold series.

Structure.—This dome has the form of an irregular corrugated double-fold, pitching slightly east and west. It is peculiar in occupying a great belt of greyish-blue slate in the lower part of the quartzite division. This resulted largely in the formation of numerous small horizontally beeded veins, making quarry work the best available means of profitable extraction. Many twists and left hand faults interfere with the regularity of the veins, making numerous small operations necessary. Such conditions are peculiarly suited to work by small parties of tributors, served by a custom mill. Just now tributors are unable to make terms with the owners.

STILLWATER MINING CO.

Manager, Clarence Johnson; Foreman, Geo. Murchy.

Employees, 8; 4 underground.

Production.—164 tons crushed, yeilded 43 oz. 6 dwt. of gold. Total for the district being 257 tons of ore, yielding 75 oz. 6 dwt.

Surface.—Ten-stamp mill, 950-lb. stamps. Modern mortars with apron, splash and inside plates. Bricked-in boiler of about 40 h. p. with engine, and a two-drill compressor.

Underground.—The work done, until closing down in April, consisted chiefly of development—drifting and crosscutting.

Other work.—In this district, work has lately been started, on a 10-inch lead east of the Moose River Gold Mining Company's property, by a New Glasgow Company. Manager, George Cameron, with 7 or 8 men are taking out a test. The belt is easy to work and dips north on one of the various minor folds. A steam hoist and pump is being used.

MOOSELAND DISTRICT.

Location.—Twelve miles north of the seaport of Tangier and 70 miles from Halifax; nine miles south east of Moose River mines.

Communication.—Twice-weekly coach from Tangier.

Geological position.—Occupies a divided dome pitching east and west toward a central fault in the Tangier River. On the Gegogan anticlinal about 4500 feet below the base of the slate division and running into the granite to the west.

Structure.—Very regular in dip and strike, on the west of the river. Faults in the river totaling over 2000 feet, throw the

eastern half of the dome to the north, or the western half to the south, which is the most probable. Productive leads are found on both sides of the anticlinal apex which is steeply inclined both to the north and south.

Operations.—A small nuggety lead was opened last spring on the Reynold-Fraser areas. No other work was done. The Stemshorn 10-stamp mill was moved to West River, Sheet Harbor, by the Winson Company.

The first gold discovery in Nova Scotia was made here, about 1858, by Capt. LeStrange, and in 1860 the second discovery was made in the washings near the Furnace lead.

This district is noted for the number and value of the rich boulders formerly found. On the Stemshorn areas, were found the rich Lawlor and Hilchey boulders, indicating the existence of two rich but undiscovered leads. The James Hilchey boulder found to the south-east of the old mines, gave at the rate of \$25,000 per ton. Its source is still hidden.

In North Mooseland also, on the extension of the Killag-Goldenville anticlinal, many rich boulders from large leads have been found. The surface, however, is deep and little prospecting has been done there.

HARRIGAN COVE DISTRICT.

MOOSEHEAD. (SHIER'S POINT.)

Location.—On the sea coast about 98 miles east of Halifax.

Communications.—Daily coach, telephone, and weekly steamer from Halifax.

Geological position.—On the eastern extension of the Tangier anticlinal and the eastern end of the Harrigan-Cove dome, and about 5000 feet below the base of the slate division.

Structure.—The Dome here pitches east about 15°. The leads are regular with few known faults. All gold-bearing veins, so far as known, are on the south dip which averages 46°, north dip 56 degrees.

Manager, J. Paul Norrie; Consulting engineer, A. Hassan.

Employees, 4 to 10; varying at different times.

Surface.—The mill contains 10 stamps of 700 lb. each and 10 stamps of 1200 lb. each; a rock breaker and challenge ore-feeders. Water power is used when available. As a substitute there are two upright 25 h. p. boilers and a 30 h. p. engine.

At the mine, is a gasoline engine running a hoist, a pump, and a 2-drill compressor. Wood cannot be had at Moosehead and the cost of coal is almost prohibitive.

Underground.—The main shaft is on the Camp-Cove lead, 22 inches thick, and 900 feet south of the saddle. Drifts run east 37 feet and west 79 feet at the 50-foot level which is the bottom of the shaft. At a 1 1-2 foot right-hand fault, 55½ feet west of the shaft, a crosscut has been started north. An angular striking the main lead a little west of the shaft makes a decided improvement in the ore. Two or three other leads have been opened on the south dip, but have not been tested.

Two hammer-drills are used and the manager claims them to be a great improvement in economy and speed over any drill used:

MONTAGU DISTRICT.

Location.—Seven miles east of Dartmouth.

Communication.—Daily coach, and telephone.

Geological position.—Occupies a dome on a local fold running from the head of the Dartmouth Lakes to the granite, east of Preston. Its geological horizon is about 5500 feet below the base of the slate division.

Structure.—This dome is oblong, nearly vertical on the south side and curving to a more moderate dip on the north side. As usual the steepest side has all the profitable veins. Several faults, some of them nearly flat, interfere with the regularity of the leads, but not to the same extent as in most other districts. In general value of ore it has exceeded nearly all other districts in Nova Scotia, in convenience of access, all but Waverley South Uniacke and Gold River.

LOON BROOK MINING CO.

Manager, E. Romilly Smith. Foreman, R. R. Barrett. Underground foreman, Wm. McQuarrie.

Employees, 24 ; 14 being employed underground.

History.—This company has been operating here since early in 1913, having treated tons of dump and opened and tested several leads.

Production.—118 tons of ore was crushed yielding 40 ounces of gold.

Surface.—During the last year the mill was enlarged by a 40 by 80-feet building. It now contains ten 850 lb. stamps with

old style batteries, and plates, a steam plant of about 40 h. p., a classifier, 2 Wilfley tables, launders, settling-tanks, a Frue-vanner, reverberatory furnace, a wheeler grinding-pan, 2 agitators each, 12 feet 6 inches in diameter and 8 feet high and of 3-ton capacity, 2 filter tanks, each 4 feet in diameter and 4 feet high, 1 Johnson 12 inch filter-press with acid valve and water-heater, 2 precipitating tanks, 2 feet wide, 1 foot 6 inches high and 12 feet long, 2 solution tanks, 6 feet in diameter and 4 feet high and 2 storage solution-tanks on the roof, 8 feet in diameter and 4 feet high.

A bullion retort, a smelting-furnace, and a complete assay plant, are among the latest additions.

Method of treatment.—The ore is broken by hand, and fed to the stamps, where, the foreman claims, a total of from 20 to 25 tons are crushed in 24 hours. The pulp then passes the plates, mercury traps and classifier, where the coarse material is deflected to Wilfley tables, and the fines through launders to a Frue-vanner. The concentrates are roasted in a reverberatory furnace, then mixed with mercury and cyanide solution and treated in the grinders. The pulp then goes through launders to agitators, remaining there from 12 to 24 hours, and passing thence into the settling tanks. After settling, the solution is decanted into the precipitating-tanks. Then having finished its work, the cyanide solution is pumped to the upper storage-tanks for further use.

Mining plant.—At the Skerry shaft has been placed a vertical boiler, an engine, a steam hoist and a fan. The engine runs two 6 inch Jackhead pumps. The managers intention is to put in a larger boiler and a 4-drill compressor.

Underground.—The shaft on the New Skerry lead is down 110 feet. It was sunk to strike the continuation of the Old Skerry lead below a nearly flat fault which threw the Skerry lead about 40 feet to the north. This fault dips south as well as west, striking the new lead about 70 feet down the present main shaft. The drift at the 100-foot level, reaches east 70 feet, and is stoped overhead to 50 feet east. The lead dips south, is almost vertical, is $2\frac{1}{2}$ to 8 inches thick and carries a working-belt of $3\frac{1}{2}$ feet thick. The lead is on the footwall, the rock breaks clean, the walls are regular and solid, and should be stoped at a moderate price.

The shaft is small but well timbered.

Prospecting.—A 3-inch lead, called the Smith lead was found to the west of the Skerry Mine, during the last summer. It is said to have assayed 3 ounces per ton, though the mill yield was much less. The Iron and Belt leads, and the Maynard lead, to the south, were also opened and tested.

GOLDEN GROUP MINING CO.

Manager, T. N. Baker.

This company has been doing some prospecting and development work with a few men. Mr. Baker started a rock tunnel north from the upper part of the Holly lead in search of the lead from which the rich drift, found in that locality, came. The ground to the north is very wet and as the tunneling is becoming very expensive, I would suggest the use of one of the Government drills there. This would save tramming and hoisting, would hasten the work, and would prevent the water from the Holly shaft from going into the workings on the new lead, when found.

Other work.—S. A. Hiseler found, last fall in this part of the district, some of the richest gold bearing boulders found there for a long time. Another evidence of the existence of the rich but hidden leads.

OLDHAM DISTRICT.

Location.—Three miles from Enfield Station on the Inter-colonial Railway, 20 miles from Halifax.

Communications.—Daily coach and telephone.

Geological position.—Situated on a local fold between the Waverley and Grand Lake anticlinals, and about 4000 feet below the base of the slate division.

Structure.—This district presents peculiar geological problems, owing to its much faulted condition, in this respect, resembling Lake Catcha. Its veins are many and rich and its paystreaks have yielded up to \$5000 a ton. The finding of the extension of these paystreaks is hindered by faults, great and small, running at different angles, and shifting the leads in different directions. These problems call for much local experience, solely technical training being useless in this maze of faulted veins. The productive leads are found on both dips, both sides of the anticlinal being equally steep.

DUNBRACK LEAD, BRENNAN MINE.

This mine was bonded by M. J. O'Brien, who began work last fall with machinery moved from the Sterling Lead. The mine was pumped out to the 450-foot level and a winze sunk to the north-east of the 97-foot fault.

M. J. O'Brien ceased operations early this spring and the property was leased by Donaldson, Reeves, and others, who are in search of the extension of the old Hardman paystreak.

Failing in their purpose, the present Company of tributors, 8 in number, renewed the task farther north-east on the same level. They are down more than 50 feet, and the lead has increased to 6 inches, giving good values. The timbering, though old, is still serviceable, and with repairs will hold for some time yet.

The machinery consists of a 40 h. p. boiler, an engine, a 2-drill compressor, a steam hoist and two Jackhead pumps, old but serviceable.

BROUSSARD ANGULAR.

John and Alex. Greenough, tributors, with 4 or 5 men each, are working here.

John Greenough working on the angular, which runs about east-north-east, cutting the main Broussard lead about 40 feet down.

Stoping has been done about 65 feet east from the main shaft. The lead averages 6 inches of crushing, slate and stringers. A whip hoists both ore and water.

Alex. Greenough, is working part of the same angular which is pierced by 6 shafts from 30 to 86 feet deep. The work done here during the last year consists of stoping about 100 feet in length, 50 feet of sinking in the main shaft, and a new 30-foot shaft 90 feet farther west. A whim is used for hoisting. The angular here contains about 4 inches of high grade ore, and slants through the slate belts, but cuts across the whim.

Production.—The total of this district was 358 tons of ore yielding 182 ounces of gold.

Prospects.—This district also has its undiscovered leads, especially the one which has thrown a train of rich 6 to 8 inch boulders from the east end of the district towards Rocky Lake.

WEST RIVER,—(SHEET HARBOR).

Location.—Sheet Harbor at head of tide water 76 miles from Halifax.

Communications.—Daily coach via Tangier and Musquodoboit alternately, telephone and telegraph. Bi-weekly steamer to Halifax and eastern ports.

Geological position.—On a local fold subsidiary to the Salmon River anticlinal, which lies about 2000 feet to the north. Horizon is about 800 feet below the base of the slate division of the Gold series.

Structure.—All leads dip south and are cut off in the river to the west by a left hand fault of nearly 5000 feet. Otherwise the structure is very regular.

WINSON MINING CO.

Manager, W. F. Jennison. Foreman, W. Whidden.

Employees 14; 8 being underground.

Work began last February and continued until a short time ago. It consisted principally of building and development.

Surface.—The Stemshorn 10 stamp mill was brought from Mooseland, together with an upright boiler and a steam hoist. Some small buildings have been put up.

Underground.—The main shaft 75 feet deep was sunk on a lead of 4 to 10 inches. Drifts were run east about 50 feet, and west 60 feet. A cross-tunnel to the north cut another small lead. A few tons of ore were hoisted, but none crushed. The mine is now idle, development work being stopped.

A test of ore made at Technical College gave \$13.25 a ton.

Total days work was 1532.

TANGIER DISTRICT.

Location.—At the mouth of the Tangier River on the post-road, 58 miles from Halifax.

Communications.—Daily coach from Halifax. Telephone and telegraph. Bi-weekly steamer to Halifax and Eastern ports.

Geological position.—Occupies the same fold as the Harrigan Cove, and Moosehead mines, and lies about 13,500 feet below the base of the slate division.

Structure.—A narrow fold, pitching slightly to the east and west. Both north and south dips are very steep; the south side having nearly all the productive leads. Owing to numerous faults the anticlinal is somewhat irregular in course. The faults in the centre are left hand while those in the east and west ends, are right hand faults.

DOMINION MINING CO.

Manager, W. J. Prisk, Foreman, W. E. Prisk.

Production. —419 tons of ore were crushed yielding 57 ounces of gold.

This mine has been continually operated for 7 or 8 years, being idle only as at present, when low water has prevented the running of the power-plant.

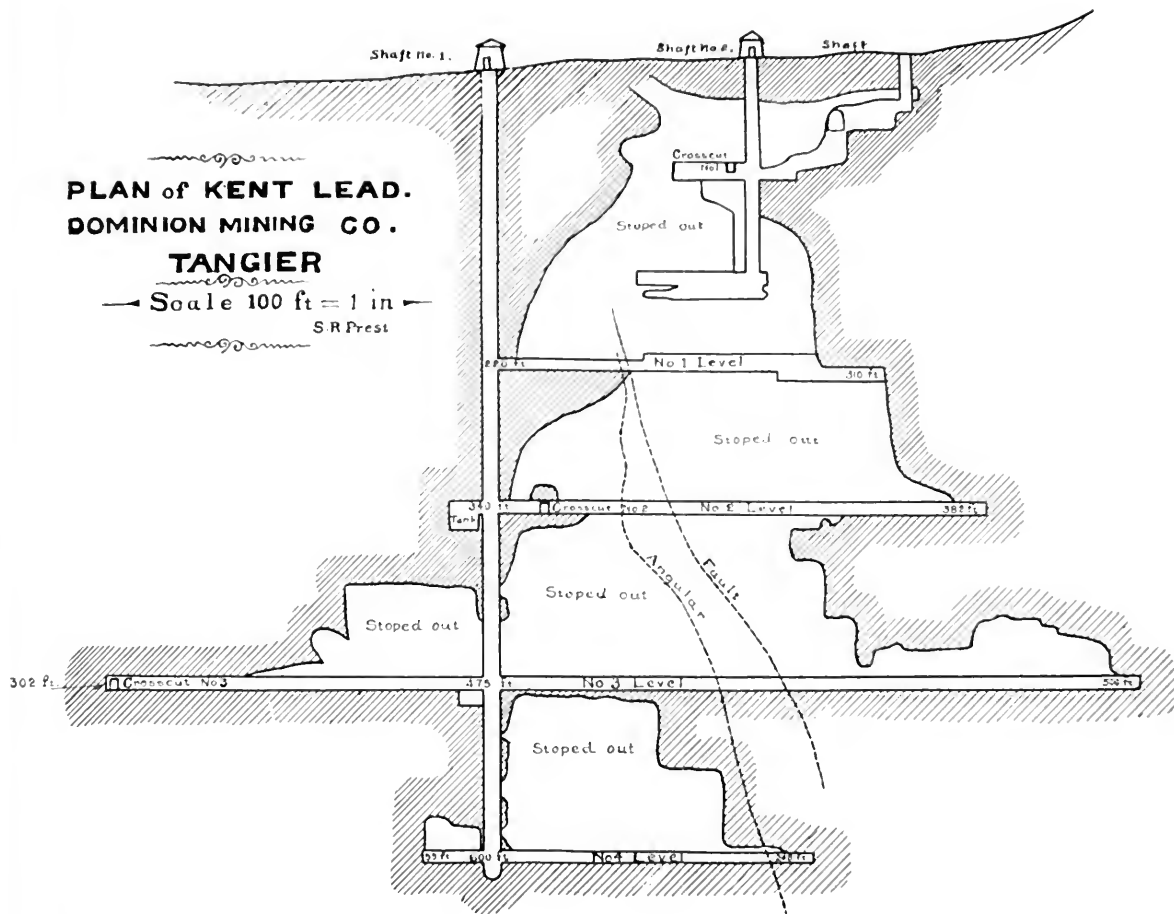
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302 ft.



**PLAN of KENT LEAD.
DOMINION MINING CO.
TANGIER**

— Scale 100 ft = 1 in —
S.R. Frost



Surface.—The plant has not been added to during the past year. The mill motor, burnt out by lightening on July 18, is being repaired.

Underground.—No. 1 shaft on the Kent lead is down 610 feet. The drifts have been driven as follows:—600-foot level east 248 feet, west 55 feet; 475-foot level, east 500 feet, west 302 feet; 340-foot level, east 382 feet, west 55 feet; 220-foot level east 310 feet. During the last fiscal year, the drifts were extended as follows:—600-foot level, east 10 feet; 475-foot level, east 128 feet; 340-foot level, distance unknown.

Crosscuts were also driven, viz.,—No. 1, in shaft No. 2, 39 feet to Big South lead: No. 2 in No. 1 shaft, at the 340-foot level, north 128 feet and south 83 feet to the Nigger lead. No. 3 at the 475-foot level, south 87 feet.

An angular dipping slightly to the east seems to be the centre of the main pay-shoot.

An underground plan of the Kent lead accompanies this report.

A little surface-prospecting was done, farther east, in search of the source of some rich float.

GUYSBORO COUNTY.

FOREST HILL DISTRICT.

Location.—Three miles from the post road leading from Country Harbor to Guysboro.

Geological position and structure are very uncertain. The surrounding metamorphic disturbances have affected it considerably, resulting in a decided pitch to the east of the fold it occupies.

This district is being opened by Arthur McNaughton, who has begun the repair of the dam and the various buildings, but has not yet started the pumps. Here has been found almost the only auriferous leads known to run through Nova Scotia granite.

GEGOGGAN DISTRICT.

Location.—West of St. Mary's River, 8 miles below Goldenville.

Communications.—Mail coach from Sherbrooke. Transportation by sea through Gegogan Harbor.

Geological position.—Occupies a dome on the Mooseland, Miller's Lake anticlinal. Its horizon is about 10,000 feet below the base of the slate division.

Structure.—The dome is wide at the west end and becomes very narrow east of the harbor. The leads are found on both sides of the anticlinal, and appear to be but slightly interrupted by faults.

The presence of much rich drift on and near the sea-shore, indicates this district as a possible future producer. Deep surface and nearness to the water, has greatly hindered prospecting. It is one of the most conveniently situated of our gold districts.

GOLDENVILLE DISTRICT.

Location.—On the St. Mary's River, near the head of navigation.

Communication.—Daily coach to Antigonish, 40 miles. Telephone and telegraph service. Weekly steamer from Halifax to Sherbrooke, 2 miles distant.

Geological position.—On the Gold Lake—Killag anticlinal, about 6,500 feet below the base of the slate division.

Structure.—Locally, the pitch is to the west. The leads are quite regular, though with undulations which are the seat of the chief pay-zones. Faults are few and of little effect. A peculiarity of this district is that the principal gold-bearing veins are on the less steep dip on the north of the apex of the anticlinal.

GOLDENVILLE GOLD MINING CO.

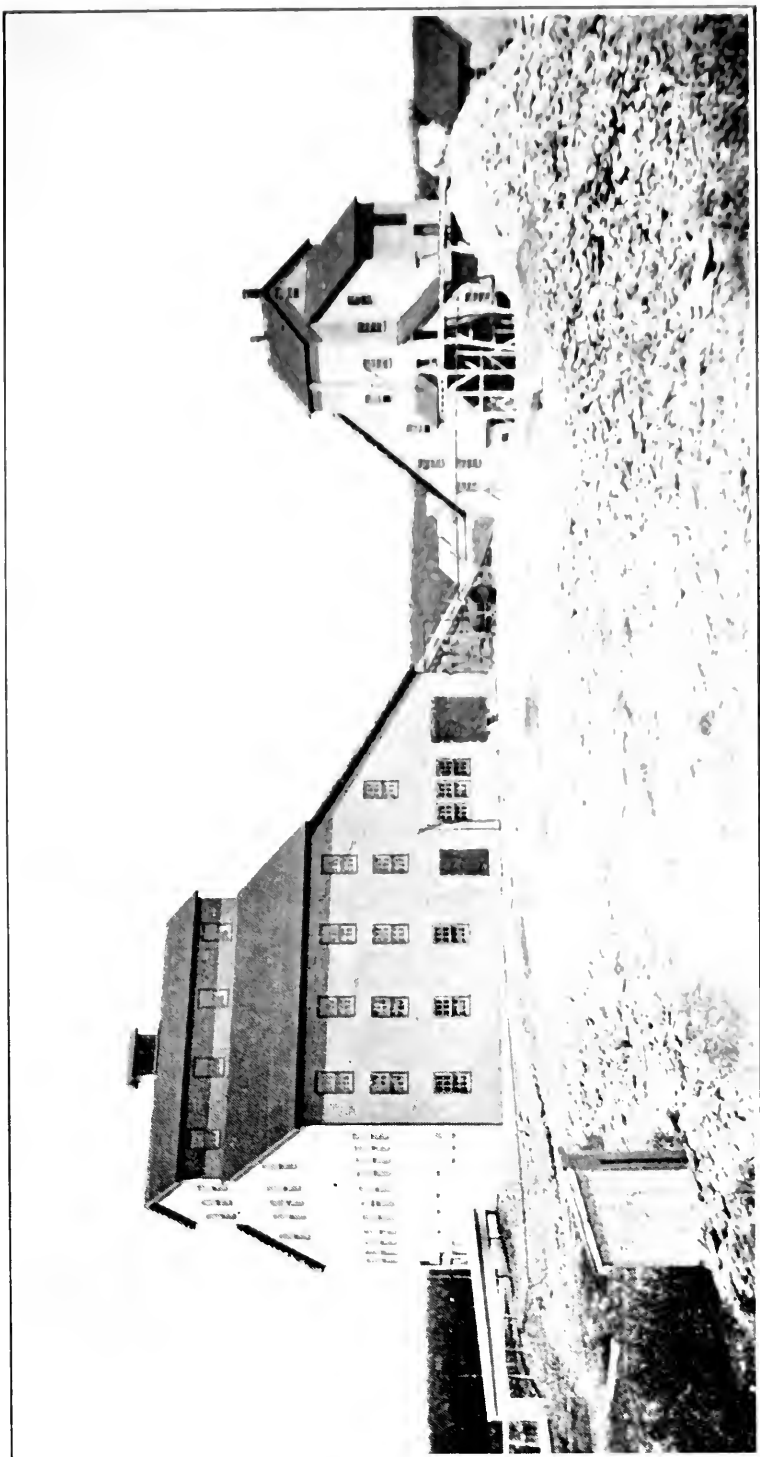
Manager, R. V. Neily; Foreman, S. F. Monk.

Employees—Averaged 48 during the year.

A. McNaughton was manager until June 14, when R. V. Neily took charge. Since then operations have been transferred from Palmerston to the Wellington lead.

Production.—6806 tons of ore were crushed, yielding 895 oz. 14 dwt. Total days work 12,788. From some of the leads the whole belt was crushed, thus accounting for the large tonnage.

Surface.—An electric-hoist of 75 h. p. has recently been erected at the old Wellington shaft which is 750 feet deep. Pumping began on July and the water has been lowered to the 300-foot level.



Mill—40 stamps—20 stamps completed and running, and Shaft House,

GOLDENVILLE MINING CO., LTD., Goldenville, N. S.

The mill and power plant at Liscomb was described in the report for 1913.

Underground.—Development work was carried on through the vertical shaft on the Palmerston lead sunk by G. W. Stuart, about 10 or 12 years ago, on area 775, Block Three. Work was begun last September, by Mr. McNaughton and completed by Mr. R. V. Neily. It includes the following. At a depth of 160 feet, crosscuts were driven north and south, 220 and 303 feet. From these, drifts were driven on the following leads. Stewart 445 feet; Striker 250 feet; Canada 386 feet. Other leads 90 feet, New lead 62 feet. Stoping was also done on these leads and much of the material, slate, and quartz, crushed in the mill.

On the Wellington lead at the 140 feet level, Alexandra shaft, a crosscut was driven North 90 feet to the Middle lead. A drift was also driven east on the Wellington lead to connect with the first shaft, east of the fault. A cross-cut was run from the 160-feet level on the Wellington lead. Two new leads were found, viz., a 10-inch lead in the cross-cut at the 100-feet level, and a 3-inch lead, with coarse gold, 20 feet north of the Wellington, at the 160-feet level.

Repair work and retimbering of the old shafts are under way, as well as new surface equipment at the shaft.

STORMONT DISTRICT.

GOLDBORO; ISAAC'S HARBOR.

Location.—On a good harbor about 20 miles east of Goldenville.

Communications.—Daily coach to Antigonish. Telephone, and weekly steamer to Halifax and other ports.

Geological position.—On the Goldenville anticlinal, which here develops two subsidiary folds on which many of the productive leads are worked. Its horizon is about 4500 feet below the base of the slate division.

Structure.—Aside from a large fault of 6000 feet, in the harbor, the structure is fairly regular. A peculiarity, is the existence of synclinal leads, as at Lochaber. The productive leads of the main fold are as usual on the steepest dip, which here is on the north side.

PALGRAVE MINE.

Manager, George McNaughton; Foreman, John Warner.

Employees 22; 14 being underground.

Production.—From 2257 tons of ore 707 oz. 14 dwt. of gold were obtained.

Surface.—The mill, as described in the 1913 report, runs ten 1000-lb stamps at 90, 6½ inch drops a minute. Steam driven machinery at No. 4 shaft on the Mulgrave lead runs a double compound compressor of a 6-drill capacity, and also a 10 by 12 inch hoist.

At No. 6 shaft, is an upright 30 h. p. boiler, a Flory hoist and two steam pumps.

Underground.—No. 6 shaft is the deepest, being 430 feet, 170 feet having been sunk during the last year. A drift at the 215-foot level, connects it with No. 4 shaft 245 feet deep, which it strikes at a depth of 220 feet. This drift has overhead, stoping to a vertical height of 30 feet. No. 1 level runs 312 feet east of shaft No. 4: No. 2 level, 100 feet lower, has been driven west 163 feet. No. 4 shaft is nearly all old work, the principal work being the following of the paystreak west, across No. 6 shaft. The paystreak here pitches west 15 to 18 degrees. The lead, 5 to 6 inches thick, formerly worked in the belt, is now being transferred to the foot-wall by taking out more of the hanging-wall. The advantages are easily understood. The walls in this mine are markedly solid and regular and may excuse any seeming deficiency of timber.

SEAL HARBOR MINE.

Three miles east of the Palgrave. Worked by tributors, Daniel McAskill, Supt.,

Employees, 14; 8 being underground.

This mine was idle until July 20th, when the pumps were started.

SURFACE.—The mill with ten 900-lb stamps, and an old style mortar, is run at 95, 6-inch drops a minute. It has 12 feet of overlapping copper-plates without steps, 8-inch splash-plates, and 4-inch inside-plates. Slope of plates, 1¼ inch to the foot. No clean-up to date.

The mill contains a 50 h. p. boiler, and a 100 h. p. engine, a Sturtevant rockbreaker, a triplex mill-pump, and a Wilfley table; the latter is not in use. A new 2-drill compressor has been put in by the present lessees.

The shaft-house on the Big Belt contains a 12 h. p. gasoline hoist. This the superintendent says is the cheapest power obtainable, though gasoline is 28 cents a gallon landed at Isaac's Harbor.



Shaft House and Palmerston Belt open cut.
GOLDENVILLE MINING CO., LTD., Goldenville, N. S.

Underground.—The main shaft on the Big belt is 110 feet deep, and has been stoped 60 feet east and 65 feet west. Overhead stoping has been done on a roll dipping west at an angle of about 50 degrees. This roll is about 30 feet deep and nearly 20 feet thick. Nearly half of this is crushed, as it is full of stringers and angulars. Two heavy 2-man-drills are used, but these will soon be replaced by three hammer-drills which the superintendent claims will each do far more work than the heavy drills, though weighing only 40 pounds.

A Cameron No. 5 pump keeps the mine dry, while a Fairbanks 4 by 5 inches is kept in reserve.

Prospects.—Several rich leads, whose existence is evident from the presence of float, still remain hidden in the Stormont district. Some of the localities noted for this are: Red Head, Hurricane Point, near the mouth of Betty Brook, and to the north-east of the Palgrave Mine.

These indications are full of promise for the future of the gold mining industry.

WINE HARBOUR DISTRICT.

Location.—About 10 miles southeast of Goldenville.

Communications.—Daily coach to Sherbrooke, transportation by sea, and a regular steamer to other ports.

Geological position.—On the Killag-Gold Lake anticlinal about 5000 feet below the base of the slate division.

Structure.—The dome form is very slightly indicated here, and reaches its highest point about four miles farther east. The anticlinal is cut off by a left-hand fault of about $\frac{3}{4}$ of a mile, in Indian Harbor. Smaller local faults are both right and left-hand. The productive leads are chiefly on a fold which is subsidiary to the north anticlinal to the east, but becomes the main anticlinal going west.

Prospects.—No mines are working here now, though spasmodic prospecting has been done. The possibilities for future work lie chiefly in its unopened leads; the presence of which is shown by the rich float which has often been found here. More particularly here. Valuable 7-inch boulders have been found on the old Provincial Company's areas, and rich float at the Napier Mine.

LUNENBURG COUNTY.

GOLD RIVER DISTRICT.

Location.—One mile from the ports of Chester Basin and Gold River, and on the Halifax and Southwestern Railway, 50 miles from Halifax.

Communications.—Daily trains east and west, telephone and telegraph. Land and sea transportation, and a regular steamer to ports east and west.

Geological position.—On a local fold surrounded by granite and gneiss on all sides, except the south. It lies about 8000 or 8500 feet below the slate division.

Structure.—Consists of a main fold or dome, and one or two subsidiary folds to the south. There are several large faults and twists in this district being left-hand in the eastern and right-hand in the western end. Some of them mark the position of payshoots. Several gold-bearing fissure veins occupy fault planes.

History.—This district is of historic interest as the name Gold River was quoted in the journal of the Rev. John Seacombe soon after the settlement of Lunenburg and Chester.

Work.—The only work done here during the past year was prospecting and development done by Messrs. Verge and Croft. They opened a small vein showing considerable gold on the north dip on the east side of the River.

Prospects.—This district is notable for the finding of great quantities of rich float from undiscovered leads. Among these still hidden leads, the most important are the Touquoy to the west and the Swamp Angel to the east of the river. The Vermillion lead, one of the richest in Nova Scotia, was found here by tracing the float from south to north. The Baker paystreak was found by the same careful and patient work.

Operations here of late years have been very desultory. Nine or ten mills have been built in this district. All but two have been closed up until they were burned or rotted down and only one is still fit for work. Tributors would have kept some of them running, but were prevented through legal complications or the refusal of idle owners to deal with them. Yet in spite of the present stagnation, this district contains undeveloped resources sufficient to ensure a long period of industry.

BLOCKHOUSE DISTRICT.

Location.—On the Halifax and Southwestern Railway, two miles from the port of Mahone.

Communications. —Daily train and telephone. Weekly steamers to Mahone, and railroad transportation to Blockhouse Station.

Geological position.—Occupies the eastern end of a local dome at the junction of the slate and quartzite divisions.

Structure.—All auriferous veins are cross or fissure veins as they are called in Nova Scotia. They have nearly vertical dips, the paystreaks dipping along the junctions of the veins with belts of mineralized slate. The mode of formation is apparently, the same as that of Brookfield, Pleasant River Barrens, and a few other mines. The Prest lead, after a few years of mismanagement by the last operators, was closed down, with the paystreak just as valuable as ever, according to the best information.

Prospects.—At least two good fissure veins still remain uncovered, and two lines of good float cross the district east and west of the old mine. At Sentry, 4 miles to the south-west, two lines of rich boulders are still untraced to their source. One of these indicates a two-foot vein giving between 2 and 3 ounces of gold a ton. The other is smaller, but equally as good.

QUEENS COUNTY.

BROOKFIELD DISTRICT.

This district though unvisited, deserves notice.

Location.—A station on the Halifax and Southwestern Railway, 110 miles from Halifax and about 40 miles from Bridgewater.

Communications.—Daily train and telephone.

Geological position.—On a local fold about 2500 feet below the base of the slate division of the gold series.

Structure.—A slightly irregular dome or fold not broken by faults to any great extent. Nearly all productive leads are cross leads, or fissures as they are called, dipping toward the centre of the dome. The chief mines are the Libbey, the East Mine, the Bonanza, and the Ophir. The first is the deepest mine in Nova Scotia, and has been worked to a depth of more than 2100 feet from the mouth of the incline. The Bonanza is noted as the source of some of the richest ore ever found anywhere. Some of the specimens from this mine were bought by the Nova Scotia Government for exhibition purposes. The Ophir is on a cross vein from 6 inches to 6 feet in thickness. A series of assays of

this vein made, by me, in 1909 gave from \$4.00 to \$603.00 per ton, the latter from sulphides from the 6 feet part of the vein, which there should give 12 or 15 per cent of concentrate. The highest assay was repeated three times with but slightly varying results. I know of no mine in Nova Scotia showing better prospects for an up-to-date plant.

FIFTEEN MILE BROOK DISTRICT.

Location.—On the Liverpool-Brookfield road, 15 miles from the former place.

Communications.—Daily coach from Liverpool and South Brookfield, both stations on the Halifax and South Western Railway. Nearest telephone at Greenfield, 5 miles.

Geological position.—Lies on the northeastern end of a dome in the slate division about 2500 feet above its base.

Structure.—The auriferous veins so far found are fissures, as is usual in or near the slate division. They cut small local folds subsidiary to the main fold to the southwest. The bedded veins which intersect the fissures contain scheelite, an ore of tungsten.

LOWE MINE.

Operated by the Switzer Mining Co., until June 9th.

Manager, E. S. Henley; Foreman Foster Dowell.

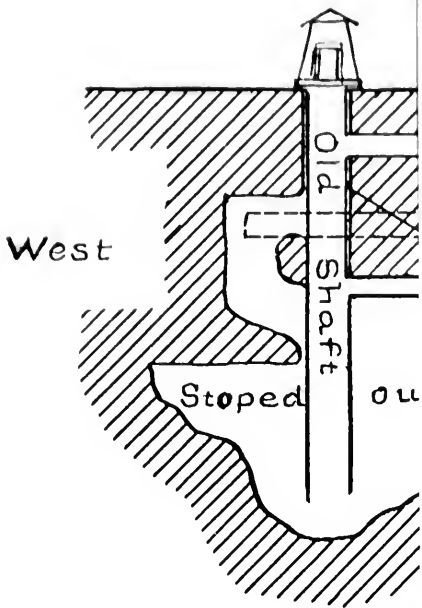
Production.—120 tons of ore crushed yielded 44 oz. 15 dwt. of gold.

Surface.—Nothing in the way of equipment has been added since the last report was issued.

Underground.—The new shaft is now 220 feet deep. The 75 feet level east, is 120 feet long, reaching to the upper fault, west; it joins the drift from the Lowe mine. This drift is now blocked by a cement dam forming a reservoir for the mill.

The 120-feet level runs east about 170 feet to the upper fault, where it exposes a well formed saddle-vein through the centre of which the fissure cuts nearly vertically. The 120-feet level, west, is 145 feet long. The 200-feet level east, is about 200 feet long with a raise about 90 feet from the shaft. The 200-feet level, west, is about 160 feet long. Overhead stoping has been done on the 120-feet level, and also to a small extent on the 200-feet level. Two faults dip about 40 degrees east, one at the east end of the upper level and the other at the bottom of the main shaft. Between them has been found the best ore in the mine, and the

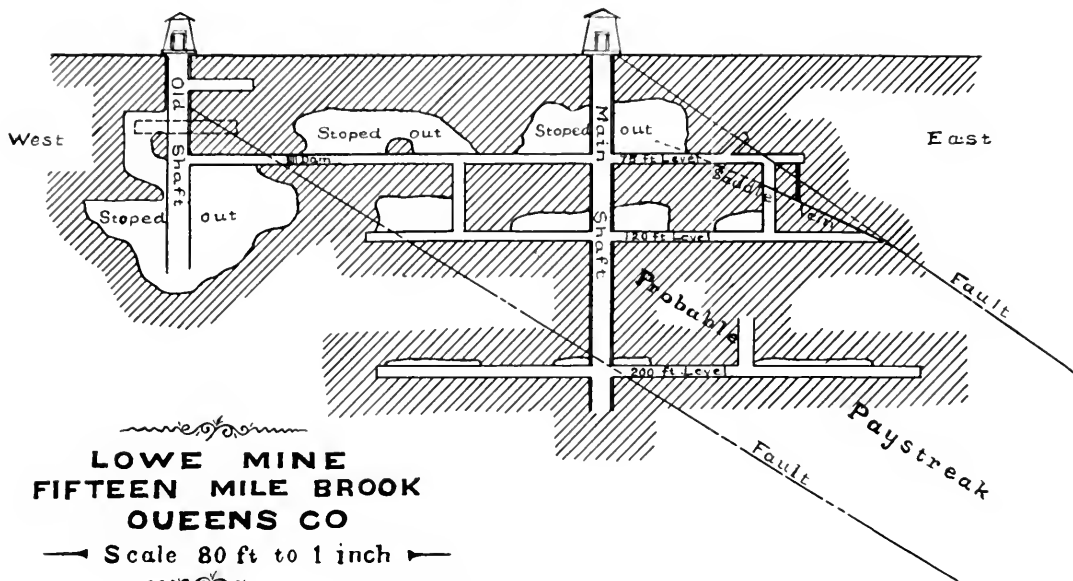
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**LOWE
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As in Jun

— An example of a Nova Scotian paystreak —



**LOWE MINE
FIFTEEN MILE BROOK
QUEENS CO**

— Scale 80 ft to 1 inch —

S. R. Prest.

As in June 1914

evidence is strongly in favor of a more or less continuous payshoot dipping east between the two faults at nearly the same angle, viz., 35 degrees. This was my reason for not countenancing the sinking of a vertical shaft here, in my report, on the suitability of this mine for such an enterprise. The company, beside reorganization, have in view the introduction of electrical power, before starting again. This can be supplied by the Milton Pulp and Power Plant at \$12.00 a h. p. per year for each 100 h. p. unit. 75 h. p. would probably fill all needs.

Prospects.—Although this district, like many others, is now idle, many evidences of value are available. Extremely rich 4-inch float from the so-called Hall lead has been found in the west end of the district. West of the mill, high-grade float has been found, the source of which still remains hidden. The Shaw boulders also show the existence of a rich lead east of the Lowe mine.

A plan of the underground work in the mine when abandoned accompanies this report.

MALAGA DISTRICT.

Location.—Between Malaga and Ponhook lakes on the Port Medway river, and 5 miles from the South Brookfield railway station.

Communications.—Daily train to Brookfield, motor boats to Greenfield, telephone at Brookfield.

Geological position.—On a large local dome or fold about 14000 feet below the base of the slate division.

Structure.—Productive veins nearly all on the north or steepest dip, which varies from 80 to 87 degrees. The south dip varies from 45 to 55 degrees. The dome is remarkably free from faults.

Work.—The Fisk block is now being opened by E. S. Henley and others on tribute. They have 14 men; 8 being underground. They have uncovered several leads, including a new 6-inch lead, which shows considerable gold. It curves around the eastern end of the central part of the dome.

The erection of a shaft-house, and the setting up of hoisting and pumping machinery is now under way.

This district also has its rich float such as the noteworthy Desmond drift.

MILL VILLAGE DISTRICT.

Location.—Five miles from Port Medway and 2½ miles from the Halifax and Southwestern Railway.

Communications.—Via Mill Village Station. Daily mails. Telegraph and telephone, &c. Seaport at Port Medway.

Geological position.—On a large local fold about 16000 feet below the base of the slate division.

Structure.—This district has been but slightly developed and the peculiarities of its structure are but little known. Gold-bearing leads are known on the north and south dips.

Since the burning of the Gold-Eagle mill a few years ago, the mines have been idle.

Prospects.—My chief reason in calling attention to this district is because of the numerous indications of rich leads which remain still unopened. One trail of boulders in the west end of the district denote the presence of a 16-inch lead; a part of which gave float valued at nearly \$200 a ton. Other rich boulders elsewhere are from a 9-inch lead and a 4-inch lead. A 2-foot boulder of 1 oz. ore shows the presence of a large lead in the northwestern part of the district.

At Somerset, a few miles east, and at Broad River to the west of Liverpool, rich drift has also been found. The finding of new leads must be the first step in the revival of the gold mining industry, hence my reason for dwelling specially on these indications of available natural resources.

VICTORIA COUNTY.

MIDDLE RIVER GOLD DISTRICT.

Location.—On the Wagamatkook or Middle River. 25 miles from Baddeck.

Communication.—By Coach.

Geological position.—In the metamorphic, Pre-Cambrian rocks of Cape Breton, the age of which is not yet well defined.

GREAT BRAS D'OR MINING CO.

Manager, D. J. Patriquin.

Employees, 10 underground.

Production.—775 tons of ore crushed yielding 262 oz. 17 dwt. of gold.

This mine has been worked since the winter of 1913.

It is in good condition. No new machinery has been added since the last report. No development work has been done.

SILVER.

Silver bearing Galena has been found in well defined veins at Caledonia, Guysboro County. Musquoboboit Harbor, Halifax County, St. Anns, and Cheticamp, Inverness County, and in irregular deposits at Smithfield, Colchester County. The Dunbrack vein at Musquodoboit, cutting the granite, shows high values, and the usual evidences of continuity. At Cheticamp, enclosed in gneiss are large bodies of ore with moderate but workable values. Argentiferous galena has also been found as float near the Ten-Mile stream, Halifax County, and in Guysboro County, denoting the existence near by of veins still-undiscovered.

COPPER.

This metal is widely distributed in Nova Scotia. As a carbonate, it is found in Antigonish and northern Colchester Counties. As a sulphide at Cheticamp, Inverness County and Springfield, Annapolis County. Native along the Bay of Fundy, particularly at Cape d'Or.

ANTIMONY.

Only one district, West Gore, shows antimony in paying quantities. Here, as well as in the gold districts, it is found as a sulphide, stibnite, containing from 1 to 3 ounces of gold per ton. This mine, about 700 feet deep, is now being pumped out preparatory to future work.

TIN.

The tin deposits of New Ross, Lunenburg County, have been neglected during the past year and the expected development work did not materialize. Want of funds is said to be the cause of delay.

TUNGSTEN.

The ore, scheelite, has been found in 8 or 9 of our gold districts, as well as in the tin deposits of New Ross.

Wolframite is known in two or three localities in Cape Breton, being accompanied in one case it is said by hubnerite. After the boom of a few years ago, these deposits have been neglected, only a little prospecting being done. Enquiries just before the war for all the tungsten available gave hopes for a revival of the industry. The last ore sold by the Scheelite Company of Moose River, is said to have brought about \$550 per ton.

MANGANESE.

The manganese mines of Nova Scotia, once comparatively important, are now idle. The two mines at New Ross have been closed down as a result, it is said, of litigation. These veins, cutting the granite, contain pyrolusite of the very highest grade, and are in many places from 3 to 6 feet wide. They show every sign of continuity. Large quantities of float in the surrounding region indicate the existence there of other veins of manganese ore of the highest grade and apparently equal to the other veins in width and continuity.

MOLYBDENITE AND LEAD.

These have both been found, but in negligible quantities; the latter chiefly as silver bearing galena.

IRON.

This metal, plentiful in Nova Scotia, is not now being mined; the great quantity of cheap ore now available from Newfoundland making our more expensive mined ore unnecessary.

BARYTES.

This ore is mined at Scottsville, Inverness County. Fourteen hundred tons were mined and shipped during the year. The Company purpose to increase the output this year. Some new machinery is being placed at the mine and satisfactory prospecting has been done.

GOVERNMENT CORE-DRILLS.

ROBERT D. ANDERSON, *Deputy Inspector*, reports the following of the operation of Government core-drills, during the fiscal year ended September 30th, 1914.

The total distance bored is 3931 feet, 10 inches, 3372 feet bored by diamond drills, and 559 feet 10 inches bored by calyx drills.

The expenditure of the Department for wages, up-keep of machines, purchase of a diamond drill, and general account, was \$7261.26, distributed as follows:—

Drill No.	1	\$ 673.63
“ “	2	206.07
“ “	3	33.00
“ “	4	not used
“ “	5	639.20
“ “	6	305.31
“ “	7	122.60
“ “	8 (bought)	1100.00
Wages and general Account		4181.45
		\$7261.26

The cost a foot for boring in the last year was \$1.51; the greatest cost a foot for boring by diamond drills was \$3.53, the lowest cost was 54 1-3 cents. The greatest cost a foot for calyx drills was \$3.92, the lowest cost was \$1.57.

The average carbon-cost a foot was 5.6 cents; the average shot-cost a foot, .89 of a cent.

A diamond drill with a capacity of 1000 feet and producing a 1- 1-8 inch core, was bought, and is ready for operating.

The following tables of the report show the strata bored and the cost of the holes;

2	"	51	40	8	1448	5	2196	3	3931	10
2	"	52	23							
2	Avondale, Hants	1	107							
2	"	2	90							
2	"	3	108							
2	"	4	27	7						
2	"	5	70							
2	"	6	56	3						
2	"	7	156							
2	"	8	133		747	10	2196	3		
5	Nappan, Cumberland	1	101		101					
5	Acadia Mine, Pictou	1	278	10	278	10	379	10		
7	Fraser's Mountain, Pictou	1	180		180		180			

DRILL NUMBER 1.

Steam Diamond, 2-inch core.

HOLE NO. 4.—At Rear Boisdale, on the property of Mr. Angus Curry, 100 feet north of bore-hole No. 3. Drilling single shift: hole drilled perpendicular, in search of iron ore for C. V. Wetmore. Fastest rate of boring 5 feet an hour in limestone. Began boring September 25th, finished hole October 28th, 1913.

Name of Rock	Color and other General Characteristics.	Thickness Bored		Total Depth	
		Ft.	Ins.	Ft.	Ins.
Surface	Soil	2	..	..	..
Limestone	Grey	10	06	12	06
"	"	19	08	32	02
Green Slate	Streaks of Hematite	3	10	36	..
Limestone	Grey	2	02	38	02
Green Slate,	Streaks of Hematite	1	06	39	08
Limestone	Grey or white	22	10	62	06
"	" "	27	07	90	01
"	" "	25	05	115	06
"	White	27	03	142	09
"	"	24	06	167	03
"	"	15	09	183	..
"	"	15	03	198	03
"	"	13	06	211	09
"	"	10	..	221	09
"	Brownish	5	09	227	06
"	White	7	09	235	03
"	Grey	17	..	252	03
"	"	11	..	263	03
"	"	16	06	279	09
"	"	4	08	284	05
"	Brown	4	04	288	09
"	Grey	10	05	299	02
Calcareous Rock	Green with Serpentine	2	02	301	04

This hole cost \$372.51 or \$1.00 3-10 a foot, as follows:—

Labor	\$ 94.00
Management	160.50
Wood and Coal	58.50
Light, Oil, etc.	1.80
Carbon Wear	45.71
Shot bits	2.40
Core Shells and Core lifters	9.60

\$372.51

DRILL NUMBER 1.

HOLE No. 5.—At Steele's Lake on the property of Stephen McPhee, 84 feet north of old pit. Hole drilled South at an angle of 45 degrees. Drill worked double shift. Began boring December 31st, 1913, finished hole January 23, 1914. Hole bored for C. V. Wetmore, Sydney. In search of iron ore.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Surface	Soil and boulders	10	..	10	..
Serpentine.	Bluish grey	1	05	11	05
“	“ “	9	03	20	08
“ . . . . .	“ “ . . . . .	..	06	21	02
“	“ “	6	..	27	02
“	“ “	2	10	30	..
Limestone	White	17	03	47	03
“	“	4	02	51	05
“	With Pyrites	6	02	57	07
“	“	10	05	58	02
“	“	18	..	86	..
“	“	22	10	108	10
“	“	9	..	117	10
“	White	8	04	126	02
Quartzite,	Hard, brown	5	..	131	02
“	“ “	11	04	142	06
“	“ “	2	06	145	..
Limestone	With Pyrites	19	06	164	06
“	“	12	..	176	06
“	“	14	06	191	..
“	“	27	03	218	03
“	“	9	..	227	03

This hole cost \$535.51 or \$2.36 a foot, made up as follows:—

Labor	\$162.00
Management	180.75
Wood	36.00
Light, Oil, waste, etc.	2.85
Carbons	108.91
Lumber, etc	4.00
Trucking	26.00
Derrick poles	3.00
Horsehire	12.00

\$535.51

DRILL NUMBER 1.

BORE HOLE No. 1 at Thibeuville, Richmond County, on the property of Jacob Thibeu, 380 feet north of his barn, and 24 feet north of small brook. Hole put down for James Nolan, Glace Bay, in search of coal; fastest rate of boring three feet an hour in grey shale. Commenced hole March 31, 1914, finished hole April 4th, 1914.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Surface.....	Soil, Clay.....	16	08	16	08
Clay.....	Red.....	4	06	21	02
Shale,	Grey	6	08	27	10
“	“	5	..	32	10
“	“	1	05	34	03
“	Red	4	01	38	04
“	Grey	2	..	40	04

This hole cost \$123.40 or \$3.08 a foot, made up as follows:—

Labor.....	\$ 32.73
Management.....	71.35
Fuel	5.25
Light, oil, and waste.....	.50
Trucking.....	12.50
Tar paper and Nails.....	1.08
	<u>\$123.41</u>

DRILL NUMBER 1.

BORE HOLE No. 2, at Thibeaupville, Richmond County, in search of coal. Fastest rate of boring 4 feet 2 inches an hour: Single shift. Commenced hole April 11th, 1914. Finished hole June 13th, 1914.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Soil	Red Clay	13	06	..	..
"	Boulders	4	..	17	06
"	"	4	06	22	..
Shale	Red	3	02	25	02
Sandstone,	Brown, and Shale.	9	04	34	06
"	" "	1	..	35	06
"	" "	16	06	52	..
"	" "	17	05	69	05
"	" "	17	07	87	..
"	" "	6	02	93	02
"	Grey	1	08	94	10
"	Brown	5	10	100	08
Shale,	Red	4	10	105	06
Sandstone,	Brown	12	09	118	03
"	Grey	7	03	125	06
"	"	55	..	180	06
Shale	Red and Grey with bands of brown sandstone . . .	21	..	201	06
Sandstone	Brown	11	07	213	01
Shale	Red, blue, bands	13	05	226	06
"	Red, blue, bands	10	10	237	04
"	Grey	2	..	239	04
"	Red with blue bands	5	03	244	07
Sandstone	Brown	1	05	246	..
"	"	1	03	247	03
Shale	Red with blue bands	13	06	260	09
"	Dark, Grey	3	05	264	02

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Shale	Dark- rey . . . . .	..	04	264	06
"	Blue, brown Sandstone.	19	08	284	02
"	" " "	16	04	300	06
"	Red, mottled with blue	10	08	311	02
Sandstone	Brown	9	02	320	04
"	Grey	2	..	322	04
"	Brown	3	02	325	06
Shale	Grey	1	..	326	06
" . . . . .	" . . . . .	..	07	327	01
Clay	Red and Shale	18	03	345	04
"	" "	11	07	356	11
Shale	Red, and Grey	4	01	361	..
"	" "	6	03	367	03
Sandstone	Brown, mottled with grey.	2	07	369	10
Shale or Clay.	Red	53	04	423	02
Shale	Red, with bands of blue.	3	07	426	09
Sandstone	Brown	4	03	431	..
"	"	1	04	432	04
Shale or Clay	Red	15	06	447	10
" "	Red	18	02	476	..
Shale or Clay	Bands of blue	10	08	486	08
" "	" Grey	5	09	492	05
" "	" Red	2	..	494	05
" "	" Red	13	05	507	10
Sandstone	Brown	7	02	515	..
Shale or Clay	Red	5	02	520	02
" "	Red,	20	..	540	02
" "	Red, Bands of Grey	19	..	559	02
" "	Red, Bands of Grey	29	02	588	04
Sandstone	Brown	4	04	592	08
Shale	Red	14	02	606	10
Shale	Red	5	03	612	01
"	Red, bands of brown Sand stone	15	11	628	..
"	Red, bands of brown Sand- stone	22	08	650	08
"	Grey	1	07	652	03
"	Red	5	09	658	..
"	Red	1	05	659	05
"	Grey	7	02	666	07
"	Brown	8	05	675	..

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Sandstone	Brown with blue bands	13	10	688	10
Shale	Red, and bands of blue	4	02	693	..
Sandstone	Brown, with bands of Shale	19	08	712	08
Shale	Red	2	02	714	10
"	Grey	2	..	716	10
"	Brown, Mottled with blue .	7	03	724	01
"	Grey, with bands of grey Sandstone	5	05	729	06
Sandstone	Grey	3	..	732	06
Shale	Grey	3	06	736	..
"	Brown	3	03	739	03
"	Grey	4	..	743	03
Sandstone	Brown	4	03	747	06
"	Brown, Mottled with blue	11	..	758	06
"	" " "	6	02	764	08
Shale	Red, " "	1	10	766	06
"	Mottled with blue bands .	11	..	777	06
"	Brown, Mottled with blue .	3	02	780	08
Sandstone	Red, Grey Mixed	7	..	787	08
"	" " "	4	03	791	11
Shale,	Mottled with blue	6	02	798	01
"	" "	11	..	809	01
"	And Sandstone	11	01	820	02
"	And Sandstone	8	..	828	02

This hole cost \$799.27 or \$0.95 a foot made up as follows:—

Labor	\$189.88
Management	304.75
Fuel	74.50
Light, Oil, Waste	6.90
Carbons	37.18
Lumber, etc.	17.28
Freight	54.28
Trucking drills	67.00
Trucking to drill	34.60
Travel	1.50
	<hr/>
	\$787.87

DRILL NUMBER 2.

STEAM DIAMOND, 1 1-8 in. CORE.

BOREHOLE No. 1, at Avondale, Hants County, in search of Gypsum for the Newport Plaster & Mining Company.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Clay	Red	11	..	..	..
Boulders . . . . .	. . . . .	10	..	21	..
“ . . . . .	. . . . .	10	..	31	..
“ . . . . .	. . . . .	6	03	37	03
Clay and boulders . . . . .	. . . . .	4	03	41	06
Clay and boulders . . . . .	. . . . .	10	06	52	..
Gypsum	White and Grey	6	..	58	..
“	White and Gray	44	..	102	..
Gypsum	Hard	5	..	107	..

This hole cost \$130.17 or \$1.21 2-3 a foot, made up as follows:

Labor	\$ 27.00
Management	69.57
Fuel	11.00
Light, Oil, Waste . . . . .	.60
Trucking	22.00
	<hr/>
	\$130.17

BORE HOLE NO. 2 at Avondale, in search of gypsum for the Newport, Plaster & Mining Co., drill working single shift.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Clay	and boulders	17	..	..	..
"	"	12	..	29	..
"	"	2	..	31	..
Sand	"	4	06	35	06
"	"	7	..	42	..
Sand-Clay.....	Red	35	06	78	..
Gypsum.....	White, Soft.....	11	..	89	..
Gypsum.....	and Limestone.....	1	..	90	..

This hole cost \$103.91 or \$1.15½, a foot made up as follows:—

Labor	\$ 32.00
Management	54.06
Fuel	16.25
Light, Oil, Waste .....	.60
	<hr/>
	\$103.91

HOLE NO. 3, at Avondale, in search of Gypsum, for the Newport Plaster & Mining Co., drill working single shift.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Clay and Sand ..	Red	23	09	..	..
Clay and boulders.....	Red	4	03	28	..
Gypsum.....	White and Grey	28	..	56	..
Gypsum and limestone ...	Grey	12	03	68	03
Limestone.....	Dark Grey	6	09	75	..
Clay .....	.....	17	06	92	06
" .....	.....	9	..	101	06
Marl.....	Hard, Red	6	06	108	..

This hole cost \$58.68 or \$0.54 1-3 a foot made up as follows—

Labor	\$ 18.00
Management	31.45
Fuel	8.75
Waste and Oil .....	.45
	<hr/>
	\$ 58.65

BOREHOLE NO. 4, at Avondale, in search of Gypsum, for the Newport Plaster and Mining Co., drill working single shift.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Clay	Red	16	..	..	..
Clay and Sand..	Red	8	..	24	..
Gypsum	White	7	..	24	07

This hole cost \$40.51 or \$1.63 2-3 a foot made up as follows:—

Labor	\$ 12.00
Management	20.31
Fuel	5.00
Light, Oil, and Waste .....	.20
Trucking	\$ 3.00
	<hr/>
	\$ 40 51

BOREHOLE NO. 5, at Avondale in search of Gypsum for the Newport Plaster & Mining Co., drill working single shift.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Clay	Red	16	..	..	..
“	Red	1	..	..	..
Gypsum	White, Soft	52	..	..	..
Lime	Hard, Grey	1	..	70	..

This hole cost \$41.91 or .59 1-8 cents a foot, made up as follows:—

Labor	\$ 12 00
Management	20 81
Fuel	8 50
Light, Oil and Waste . . . . .	.60

\$ 41.91

BOREHOLE No. 6, at Avondale, in search of Gypsum for the Newport Plaster and Mining Co.; drill working single shift.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Limestone	Hard, Grey	56	03	..	..

This hole cost \$37.46 or \$.66 2-3 cents a foot, made up as follows:—

Labor	\$ 10.00
Management	20.81
Fuel	6.25
Light, Oil and Waste . . . . .	.40

\$ 37.46

BOREHOLE No. 7, at Avondale in search of Gypsum for the Newport Plaster and Mining Co., drill working single shift.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Clay	Red	20	6	20	6
Limestone	Grey	4	..	24	..
Clay	Red	5	6	30	..
“	“	6	..	36	..
Limestone	Grey	1	..	37	..
Shale	Black	9	6	46	6
Gypsum	White and dark-grey	14	6	61	..
“	White and grey	37	..	98	..
Limestone	Grey	1	..	99	..
Limestone and Gypsum	“	6	8	105	8
Gypsum	White	6	10	112	6
“	“	16	4	128	10
Limestone	Grey	5	2	134	..
Limestone and Gypsum	“	22	..	156	..

This hole cost \$139.16 or 89 1-5 cents a foot as follows:—

Labor.....	\$ 40.50
Management.....	74.96
Fuel.....	17.00
Light, Oil, and Waste.....	.70
Trucking.....	6.00
	<hr/>
	\$139.16

BOREHOLE No. 8 in search of Gypsum for the Newport Plaster & Mining Co., drill working single shift.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Gypsum	Dark	10	6	..	..
"	"	8	10	19	4
Limestone.....	Grey.....	..	6	19	10
Gypsum	Light and Dark.....	22	10	42	8
"	Blue.....	..	10	43	6
Gypsum and Limestone.....	.....	3	1	46	7
Gypsum	Blue.....	10	..	56	7
Gypsum and Limestone.....	.....	11	5	68	..
Gypsum	Thin layers of Limestone ..	65	..	133	..

This hole cost \$119.77 or 90 1-5 cent a foot made up as follows:—

Labor.....	\$ 24.00
Management.....	40.62
Coal, Oil and Waste	7.15
Freight.....	38.00
Loading Car.....	2.00
Trucking.....	8.00
	<hr/>
	\$119.77

DRILL NUMBER 2.

STEAM DIAMOND 1½ inch CORE.

Holes, Numbers 35 - 52.

On the property of the Wentworth Gypsum Co., near Windsor, in and about Eagle Swamp and Wentworth Creek, in search of gypsum. Began boring October 11th, 1913, finished holes October 24th, 1913. Drill working single shift. The following is a record of material bored.

HOLE 35.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Plaster	Loose, and black Mud	6	06	6	06
Gypsum	Soft, white	6	08	13	02
"	" " grey	14	10	28	..
"	" " "	17	08	45	08
"	" " "	16	10	62	06
"	" " "	12	09	75	03
"	" " "	11	..	86	03
"	" " "	15	05	101	08
"	" " "	9	03	110	11
"	" " "	4	09	115	08
"	" " "	6	05	122	01
"	" " "	4	07	126	08
"	" " "	13	04	140	..

This hole cost \$114.51 or .83 cents a foot made up as follows—

Labor	\$ 31.26
Management	57.60
Fuel, Light, Oil, etc	7.85
Trucking	17.80
	<hr/>
	\$114.51

HOLE 36.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft	Ins.	Ft.	Ins.
Surface	Loose Gypsum.	5	02	5	02
Gypsum	Hard and Soft streaks	10	..	15	02
"	" " " "	9	02	24	04
"	" " " "	11	..	35	04
"	Blue and soft.	3	..	38	04
"	Soft and White.	5	02	43	06
"	Hard, soft and white Mixed	2	08	46	02
"	Soft and White.	12	03	58	05
"	Hard blue	..	07	59	..
"	" "	10	..	69	..
"	" "	3	03	72	03
"	Soft, White.	10	02	82	05
"	" "	14	07	97	..
"	" "	15	09	112	09
"	" "	16	..	128	09
"	" "	4	03	133	..

This hole cost \$114.45 or 86 1-3 cents a foot made up as follows:—

Labor	\$ 26.00
Management	50.40
Fuel	10.00
Light, Oil, etc.	.20
Trucking	21.10
Material	6.75
	<hr/>
	\$114.45

HOLE 37.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Gypsum	Loose	2	03	2	03
"	Soft, White	4	11	7	02
"	" "	3	05	10	07
"	Hard, blue	10	05	21	..
"	" "	13	08	34	08
"	" "	10	03	44	11
"	Soft, White	2	01	47	..
"	" "	4	09	51	09
"	Hard, blue	10	..	61	09
"	" "	12	03	74	..

This hole cost \$82.05 or \$1.11 a foot, made up as follows:—

Labo	\$17.20
Management	36.00
Fuel	7.50
Light, Oil and Waste	.20
Housing	6.00
Trucking	15.15
	<hr/>
	\$ 82.05

HOLE 38.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Gypsum	Loose	1	05	1	05
"	Hard-blue, white-streaks . .	10	03	11	08
"	" "	11	..	22	08
"	" "	5	03	27	11
"	" "	13	..	40	11
"	" "	12	08	53	07
"	" "	6	08	60	03

This hole cost \$61.70 or \$1.03 a foot, made up as follows—

Labor	\$15.20
Management	25.20
Fuel	4.25
Light, Oil, and Waste . . . . .	.15
Housing	5.00
Truckage	11.90
	<hr/>
	\$ 61.70

HOLE 39

Name of Rock	Color and Other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Mud and Sand	Soft, White	6	06	6	06
Gypsum	" "	8	06	15	..
"	" "	7	03	22	03
"	" "	4	..	26	03
"	Hard, blue	3	..	29	03
"	" "	10	03	39	06
"	" "	5	06	45	..

This hole cost \$70.15 or \$1.56 a foot made up as follows—

Labor	\$20.40
Management	32.40
Fuel	3.00
Light, Oil, and Waste . . . . .	.15
Trucking	14.20
	<hr/>
	\$70.15

HOLE 40.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Sand and gravel		11	..	11	..
Gypsum	Soft, White	6	09	17	09
"	"	12	03	30	..

This hole cost \$105.85 or \$3.53, made up as follows:—

Labor	\$ 30.40
Management	50.40
Fuel	10.00
Light, Oil, and Waste	.50
Trucking	14.55
	<hr/>
	\$105.85

HOLE 41.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Sand and boulders		15	02	15	02
	Driving Casing Pipe	2	01	17	03
	Driving Casing pipe	3	05	20	08
Gypsum		18	04	39	..
"		16	08	55	08
"		15	..	70	08
"		14	04	85	..
"		6	..	91	..
"	Hard blue	9	02	100	02
"	" "	10	10	111	..

This hole cost \$192.05 or \$1.73 a foot, made up as follows:—

Labor	\$61.00
Management	86.25
Fuel	12.50
Light, Oil, and Waste	.50
Casing	3.00
Trucking	28 80
	<hr/>
	\$192.05

HOLE 42.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Sand, gravel, and boulders.		6	09	6	09
Gypsum	Soft, White	6	09	13	06
"	" "	8	..	21	06
"	" "	18	..	39	06
"	" "	8	06	48	..
"	" "	17	05	65	05
"	Hard	6	01	71	06
"	"	1	06	73	..
"	Soft and white	5	06	78	06
"	" "	7	06	86	..
"	" "	11	05	97	05
"	Hard and blue	2	..	99	05
"	" "	10	07	110	..

This hole cost \$118.90 or \$1.08 a foot, made up as follows—

Labor	\$ 31.60
Management	56.25
Fuel	6.25
Light, Oil and Waste	.40
Casing	4.45
Trucking	19.95

\$118.90

HOLE 43.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Sand and boulders.		10	03	10	03
Sand and boulders.		11	09	23	..
Gypsum	Soft, White	10	06	33	06
"	" "	15	06	49	..
"	" "	14	08	63	08
"	" "	13	04	77	..
"	Hard, blue	5	01	82	01
"	Soft, White	2	03	84	04
"	Hard, blue	5	02	89	06
"	" "	12	05	101	11

This hole cost \$103.76, or \$1.01 a foot, as follows:—

Labor	\$ 29.00
Management	48.75
Fuel	5.50
Light, Oil, Waste . . . . .	.25
Casing	6.01
Trucking water and drill	14.25
	<hr/>
	\$103.76

HOLE 44.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Sand and gravel		10	..	10	..
Gypsum	Soft, White	9	03	19	03
"	"	15	03	34	06
"	"	15	..	49	06
"	"	15	06	65	..
"	"	15	..	80	..
"	"	14	06	94	06
"	"	9	04	103	10
"	"	6	05	110	03
Sand and gravel		3	..	113	03

This hole cost \$106.00, or .94 cents a foot, as follows:—

Labor	\$ 30.25
Management	52.50
Fuel	7.50
Light, Oil, and Waste . . . . .	.30
Casing	1.20
Trucking	1.25
Water for drill	13.00
	<hr/>
	\$106.00

HOLE 45.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Sand and gravel		10	..	10	..
"		1	04	11	04
Gypsum	Soft and white	7	08	19	..
"	"	20	02	39	02
"	"	16	..	55	02
"	"	17	04	72	06
"	"	14	02	86	08
"	"	2	08	89	04
"	Hard and blue	3	07	92	11
"	"	7	07	100	06
"	"	10	04	110	10
"	"	1	04	112	02
"	Soft and White	13	02	125	04

This hole cost \$98.55, or 78 ½ cents a foot as follows:—

Labor	\$ 24.60
Management	45.00
Fuel	7.50
Light, Oil and Waste	.40
Casing	1.20
Trucking drill	4.25
Water for drill	15.60
	<hr/>
	\$ 98.55

HOLE 46.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Sand and gravel		7	05	..	..
Gypsum	Soft and White	14	09	22	02
"	" "	30	06	52	08
"	" "	20	..	72	08
"	Hard blue	5	02	77	10
"	Soft, white	8	..	85	10
"	Hard, Blue	2	08	88	06
"	" "	11	06	100	..
"	Soft, White and blue	10	02	110	02

This hole cost \$92.90 or 77½ cents a foot made up as follows—

Labor	\$ 37.61
Management	26.25
Light, Oil, and Waste	.35
Trucking water	15.60
Trucking drill	2.75
Driving shoe	2.00
Casing	.84
	<u>\$ 85.40</u>

HOLE 47.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Surface	Sand and Rock	7	09	..	..
Gypsum	Soft and White	22	03	30	..

This hole cost \$61.95 or \$2.06½ a foot made up as follows—

Labor	\$ 34.50
Management	18.75
Fuel	1.50
Light, Oil, and Waste	.15
Trucking	1.85
Water for drill	5.20
	<u>\$ 61.95</u>

HOLE 48.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Surface	Sand and stone	72	..	72	..
"	"	24	..	96	..

This hole cost \$174.85 or \$1.82 a foot, made up as follows:—

Labor	\$68.00
Management	56.25
Fuel	12.50
Light, Oil, and Waste	1.10
Casing Pip	8.00
Trucking	26.00
Water Pipe	3.00
	<hr/>
	\$174.85

HOLE 49

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Clay and boulders	60	01	60	01

This hole cost \$125.41, or \$2.09 a foot, made up as follows:—

Labor	\$ 36.00
Management	41.25
Fuel	12.50
Light, Oil, and Waste .....	.40
Casing	6.36
Water pipe	8.00
Trucking drill	5.25
Trucking Water for boiler	15.65
	<hr/>
	\$125.41

HOLE No. 50.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Sand	and boulders	43	..	43	..

This hole cost \$117.15, or \$2.72½ a foot made up as follows—

Labor	\$ 18.00
Management	41.25
Fuel	5.50
Light, Oil, and Waste	1.00
Casing	4.80
Trucking drill	18.20
Trucking water for drill	28.40
	<u>\$117.15</u>

HOLE 51, 800 feet north of No. 50 hole.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Gypsum	Soft, white and hard	9	03	9	03
“	“ “ “	18	05	27	08
“	“ “ “	8	..	35	08
Mud, Sand, and gravel . . . . .	. . . . .	5	..	40	08

This hole cost \$68.30 or \$1.67 a foot, as follows:—

Labor	\$ 27.00
Management	27.25
Fuel	1.50
Light, Oil, and Waste . . . . .	.15
Timber	— 2.00
Trucking	10.40
	<u>\$ 68.30</u>

HOLE 52, about 15 feet east of No. 51 hole:

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Gypsum	Soft, White	16	02	16	02
"	Hard, blue	2	..	18	02
"	Soft, White	3	07	21	09
Mud and Sand	,	1	03	23	..

This hole cost \$30.05 or \$1.22 a foot as follows:—

Labor	\$12.00
Management	11.25
Trucking water	5.20
Fuel	1.50
Light, Oil, etc. ....	.10

\$ 30.05

DRILL NUMBER 5.

STEAM-CALYX, 6-INCH CORE.

HOLE No. 1, in Acadia Mine, Pictou County, to prove underlying seams, Drilling expenses borne by the government of Nova Scotia. Boring began February 28, 1914, finished hole April 10, 1914, Depth of hole 278 feet 10 inches.

DRILL NUMBER 7.

HORSE-POWER OR HAND-POWER CALYX; 1 5-8 INCH CORE.

HOLE No. 1, at Fraser's Mountain, Pictou County, in search for Coal; drill working single shift with gasolene engine, for E. F. Munroe. Commenced hole December 7-1913 finished January 21, 1914.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Clay	and boulders, Red	7	..	7	..
"	"	4	..	11	..
" .....	" .....	..	04	11	04
"	"	3	02	14	06
"	"	10	06	25	..
Fire Clay	Dark	3	10	28	10
"	Very Light	2	08	31	06
"	"	5	07	37	01
" .....	" .....	..	02	37	03
Flinty boulders .....	.....	..	09	38	..
Fire Clay	Blue	5	..	43	..
"	Light	1	..	44	..
"	"	1	04	45	04
"	"	3	04	48	08
"	"	7	08	56	04
Shales	Black, streaked with Coal..	1	08	58	..
Sandstone	Grey .....	..	06	58	06
Fire Clay	Blue	4	06	63	..
Shales	Black	4	..	67	..
"	"	3	06	70	06
Coal	Slate	2	10	73	04
Shales	Light	1	..	74	04
"	Black	2	04	76	08
"	"	3	04	80	..
Shales	and Coal	3	07	83	07
"	Black .....	..	08	84	03
Limestone	White	5	09	90	..
"	and Sandstone	5	..	95	..
"	White	4	..	99	..
"	"	7	02	106	02
"	"	2	..	108	02
"	Mottled, white and blue	8	10	117	..

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Sandstone	Blue-gray	2	..	119	..
“	“	7	09	126	09
Limestone	Mottled white and blue .....	..	3	127	..
“	“ “ “ brown	5	..	132	..
“	Dark grey	6	..	138	..
“	“ grey .....	..	07	138	07
Conglomerate ..	Part lime, grey	2	05	141	..
“	“ “	3	..	144	..
“	“ “	5	09	149	09
“	Red and Blue	7	11	157	08
“	“ “	6	04	164	..
“	“ “	7	..	171	..
“	“ “	7	..	178	..
“	“ “	2	..	180	..

This hole cost \$1.57 a foot or a total of \$277.60 made up as follows:—

Labor	\$ 72.00
Management	124.37
Fuel	25.45
Light, Oil, and Waste	1.98
Shot	5.00
Lumber	7.00
Casing	7.75
Trucking, and other expenses	34.05
	<u>\$277.60</u>

DRILL NUMBER 5.

STEAM-CALYX, 6-INCH CORE.

HOLE NO. 1, at Nappan, Cumberland County, 1076 feet north-west of barn owned by Albert Lawrence. Hole bored for Charles Nelson *et al*, in search of Coal. Began boring October 18th, 1913, ceased boring November 7th, 1914.

Name of Rock	Color and other general characteristics	Thickness bored		Total depth	
		Ft.	Ins.	Ft.	Ins.
Sand and cobble stones		39	..	39	..
Marl and lignite . . . . .		..	..	54	..
Sand and Clay . . . . .		..	..	64	..
“ “ . . . . .		..	..	64	04
“ “ . . . . .		..	..	72	..
“ “	White	..	..	77	02
Clay . . . . .	“	..	..	80	..
“ . . . . .	“	..	..	89	..
Sand . . . . .	“	..	..	101	..

This hole cost \$396.62 or \$3.92.5, as follows:—

Labor	\$ 82.00
Management	142.69
Coal	72.00
Light, Oil and Waste	1.00
Casing	44.08
Freight, drill	50.40
Travelling expenses	4.45
	<hr/>
	\$396.62

QUARRIES.

ROBERT D. ANDERSON, *Deputy Inspector*, reports the following of the quarries operated in Nova Scotia in the fiscal year ended September 30th, 1914.

The quarries are in good condition and are economically and safely operated.

A few irregular practices, at two of the quarries, required only to be brought to the attention of the operators, to be discontinued. The law relating to quarries is generally observed.

The output for the year is as follows:—

Gypsum.....	283,340 tons
Limestone.....	335,515 “
Building Stone.....	15,486 “
Grindstone.....	202 “

The decrease in the output of limestone, which is used for fluxing, was due to the falling off in the manufacture of iron and steel at the plants of the Dominion Steel Co., and the Nova Scotia Steel & Coal Co.

The increase in gypsum production, as compared with the previous year, was 11,731 tons; the production of building stone increased 2,300 tons; and grindstone increased 62 tons.

Two fatal accidents were reported. John Morrison, quarryman was killed at Marble Mountain Quarry, on December 1st, 1913, by falling into a car; and Andrew Chaisson, quarryman was killed at the Cheticamp Gypsum and Plaster Company's Quarry, on October 6th, 1914, having been run over by a car.

The following quarries were operated during the year:—

WALLACE SANDSTONE QUARRIES, CUMBERLAND COUNTY.

THOMAS O. DOBSON, *General Manager*.

This quarry is working full time, is in good condition and employs 50 men. The product for the year was 15,468 tons. No new machinery has been added since last report.

GEORGE'S RIVER QUARRY, CAPE BRETON COUNTY.

This quarry, operated by John S. Nairn and A. L. Campbell as lessees, is owned by the Dominion Iron & Steel Co. The product is used as flux at the blast furnaces of the Company at Sydney. Operations ceased in August, the output being 19,911 tons; 30 men were employed.

POINT EDWARD QUARRY, CAPE BRETON COUNTY.

This quarry is owned by the Nova Scotia Steel & Coal Co., and is under the supervision of Mr. Fulton Cameron. The product is limestone, and is used as flux at the Company's furnaces at Sydney Mines. The output for the year was 47,863 tons; about 40 men were employed. Work was steady to August 7th, when the quarry was closed.

MARBLE MOUNTAIN QUARRY, INVERNESS COUNTY.

A. A. CAMPBELL, *General Manager.*

This quarry is owned and operated by the Dominion Iron & Steel Co. The product is limestone, used as flux in the blast furnaces at Sydney. Work was steady to September 11th, when the quarry was closed. The output was 219,978 tons. About 200 men were employed. After operations ceased, the plant was put in order for a winter's idleness.]

NICTAUX GRANITE QUARRY, ANNAPOLIS COUNTY.

This quarry is operated by Messrs Hoyt and Reid. The product, which was 350 tons of granite last year, was manufactured into monuments at the Company's works at Middleton. The quarry is operated about 8 months in the year. The force consists of 8 men.

RICE'S QUARRY, NICTUAX, ANNAPOLIS COUNTY.

THELBERT RICE, *Manager.*

This quarry produced last year 250 tons of granite. Eight men were employed from May 1st to October 1st. The greater part of the output was shipped to Bear River, and used in the manufacture of monuments; the remainder was finished at the quarry.

WENTWORTH GYPSUM COMPANY'S QUARRIES. HANTS COUNTY.

E. N. DIMOCK. *General Manager.*

This company produced last year 130,035 tons of gypsum. Three quarries were operated, employing about 200 men.

The Fraser quarry which has been open for some years, was equipped with additional machinery. A new cable-system has been installed; it is 500 feet long and has a lift of three and one-half tons. The engine is 10 by 15 inches, 75 h. p.; and the plant is in good condition. These quarries work all year, and the product is shipped in its crude state to New York. The output increased, over the previous year, 13,000 tons.

ST. ANN'S QUARRY, VICTORIA COUNTY.

This quarry is owned and operated by the Victoria Gypsum Mining and Manufacturing Co. It is a good producer and employs about 125 men. The output for the year was 40,018 tons. The business is managed successfully by W. Clarence Lodge. The railroad is in need of repair, and a larger rail is to be laid from the quarries to the pier at Munroe's Point, about three miles.

WALTON QUARRIES, HANTS COUNTY.

The quarries are operated by Mr. Albert Parsons, M. P. P., for the Maritime Gypsum Co., who hold the property in lease from the Churchill Estate. The material is gypsum, the daily output being about 250 tons. The railway is being extended from the South-Mountain quarry to near the Walton Quarry, and all the product will be shipped by rail to the pier, saving the long haul by trucks on the main Street. The output for the year was 35,000 tons, with a force of 40 men.

CHEVERIE QUARRIES, HANTS COUNTY.

These quarries are operated by Mr. Albert Parsons, M. P. P., Mortimer Parsons, Manager. The output for the year was 30,000 tons; about 30 men were employed. The gypsum is hauled to the shipping places in carts and shipped to the United States.

CHETICAMP GYPSUM & PLASTER CO., EASTERN HARBOR, INVERNESS COUNTY.

MR. HUBERT AU COIN, *Superintendent.*

There has been much improvement in the operating of this quarry during the last year, and contracts are signed for all

the gypsum that the Company can produce for the current year. Two quarries have been opened. One south and one east of the old workings. The output is about 250 tons a day. The average calcined is 50 tons in 24 hours, the remainder being shipped crude. About 1000 tons of manufactured material and 2000 tons of gypsum are on hand. The shipment for the year was 6,000 tons; about 60 men were employed.

There are on hand, ready to be placed, one engine 210 h. p. two sets of grinders; one 8 by 10 ft. Calcining kettle; one set of screens, and one 50-ton locomotive.

The pier is complete and has a capacity for steamers of 3000 tons burthen.

OTTAWA BROOK QUARRY, VICTORIA COUNTY.

This business owned and operated by the Newark Plaster Co., of Newark, N. J., has received new life during last year. The old quarry has been abandoned and a new one opened, two miles farther to the westward, which promises a larger output of good gypsum. The railway has been extended to the new quarry. A temporary road will be laid to complete the fall shipments, and during the winter the road will be made permanent. The output for the year was 1,100 tons, and 8 men were employed.

The prospects for increased shipments look good. Mr. Calvin Tomkins has been appointed general manager, and Mr. John Y. Gillis financial agent.

AVONDALE QUARRIES, HANTS COUNTY.

These quarries are owned and operated by the Newport Plaster, Mining and Manufacturing Co., J. B. King & Co., of New York, being the principal owners. Captain Dan Munroe is general manager.

The output was 48,137 tons of gypsum, an increase of 2,445 tons over the previous year; 65 men were employed. There has been no new additions to the plant. The product was all shipped to the United States.

IONA GYPSUM COMPANY, LIMITED.

MR. CHARLES VERNIAND, *Manager.*

This Company, whose head office is at 309 Charlotte Street, Sydney, N. S., began work at Grass Pond, in January, 1914, to develop a gypsum quarry and build a plaster mill.

The works are two miles north from Iona Station on the Intercolonial Railway, at the Shore of Bras d'Or Lake. The gypsum is of good quality and runs from light grey to nearly white, and improves with depth. It is calcined at the plant. There are 20 men employed. The quarry is about 50 yards from the milling-plant and the crude material can be brought to the mill with little cost. The mill has a capacity of 60 tons a day of 10 hours, 25 per cent being lost in calcining. The mill-houses are neatly built of good material, and finished outside with corrugated-iron walls. The mill-building is 60 by 40 by 20 feet post, and the power-building 50 by 40 by 20 feet post. The power-plant consists of two 66-inch by 16 feet tubular boilers, running at a pressure of 150 lb., and one engine, 18 by 20 inches. In the mill building are two 10-foot kettles, each of 10 tons capacity; one nipper; one cracker; one hair-picker; one mixer; three 42-inch mill-stones, and two 36-inch millstones.

The name of the place has been changed to Gypsumville. The works are reached by highway from Iona, or by water which has suitable depth for shipping within 50 feet of the mill.

The project is in its infancy yet and the cost of manufacture is not definitely arrived at.

There were on hand at the end of the fiscal year 75 tons of finished plaster and 1,400 tons of crude gypsum.

There is a good Canadian demand for plaster. About 1500 tons were quarried.

A small trial cargo has been shipped to Toronto, and a few local sales have been made.

WINDSOR QUARRY, HANTS COUNTY.

This quarry is owned and operated by the Windsor Gypsum Co., Mr. Thomas A. Mosher is manager. The production was 12,128 tons and 25 men were employed. The quarry closed last of September. The gypsum is shipped, crude, to the United States.

CURRANS QUARRY—CUMBERLAND COUNTY.

Percy T. Smith lessee and Manager. This quarry is in the town of Amherst. The product is brown sandstone of which 950 tons were quarried, employing 9 men.

WOODBURN QUARRY, PICTOU COUNTY.

This quarry is owned and operated by the Mohawk Grindstone Co., Mr. James Stevenson Manager. The product is grindstones made at the quarry. The output was 202 tons of finished product. Ten men were employed.

SUCCESSFUL CANDIDATES MINING EXAMINATIONS, 1914.

Certificates of Competency and Certificates of Service were granted to the following applicants, after the annual examinations for recommending certificates for managers, underground managers, overmen, and engineers, held in June 1914.

MANAGERS.

William F. Campbell	Springhill
John C. McNeil	"
Donald McAsKill	Westville
Charles Edward Swan	"
Edward Allan	Stellarton
William Blakey	Dominion No. 6
John McIntosh	Glace Bay
Roderick V. McNeil	New Waterford
Stephen McNeil	"
William R. Cameron	New Aberdeen
William James Graham	New Waterford
David F. Guthro	Reserve Mines

UNDERGROUND MANAGERS.

Joseph Johnston	Inverness
Walter Kirkwood	"
Alexander C. Morris	Springhill
Joseph J. Johnston	Joggins
Frank Dieltgens	"
George R. Fairley	"
William Jefferson Green	River Hebert
Thomas McEwan	Westville
David Henderson	Westville
William McDonald	Stellarton
William Henry Johnston	"
Willoughby Thomas Gotteridge	Sydney Mines
Michael Thomas Lynch	New Aberdeen
Alexander J. Burden	Dominion
James L. Jobe	Caledonia Mines
Daniel J. McLellan	"
Michael J. Hartigan	Sydney Mines
John Ramsdale	Florence
Roderick J. McNeil	New Waterford

OVERMAN.

John Thomas Cox	Springhill
Frank Crawford	"
James Davis	"
Alexander Shaw	Joggins
Arthur Breen	Westville
William Tingley	"
John Henry Withers	Stellarton
Robert Stark Winton	"
Thomas Pearl Taylor	"
Alex. Nicholson Sample	"
Martin W. Cameron	Inverness
John R. McDougall	Dominion No. 6
George J. Nearing	"
Havelock Hulbert	Glance Bay
Walter C. Chard	New Aberdeen
Michael McLean	Caledonia Mines
Michael S. Campbell	Dominion
John J. McLean	Caledonia Mines
Donald J. McNeil	MacKay's Corner
Duncan Gouthro	Dominion No. 4.
John Hitchen	New Aberdeen
John Roderick Farrell	Dominion No. 4
John D. McDonald	Glance Bay
Ernest Brooks	New Aberdeen
William F. McKenzie	Caledonia Mines

ENGINEERS.

Arthur Alloway	1st Class Service	Springhill
Angus H. Cameron	"	Stellarton
Stephen Kennedy	1st Class Competency	Springhill
Arthur McLellan	"	Dominion No. 3
William L. Chirgwin	"	Sydney Mines
William Edson Brown,	2nd Class Competency,	Chignecto Mines
Stephen Faules	"	"
Henry A. Burke	"	Joggins Mines
Frank Edwards	"	Glance Bay
John Jones	"	Sydney Mines
Stanley Shand	"	New Aberdeen
Edmund Burns	"	Dominion No. 4
Francis Graham	"	Florence
Alexander McInnis	"	Dominion No. 4
George Boyce	"	Glance Bay
James Barry	"	New Aberdeen
Angus McIntyre	"	New Waterford

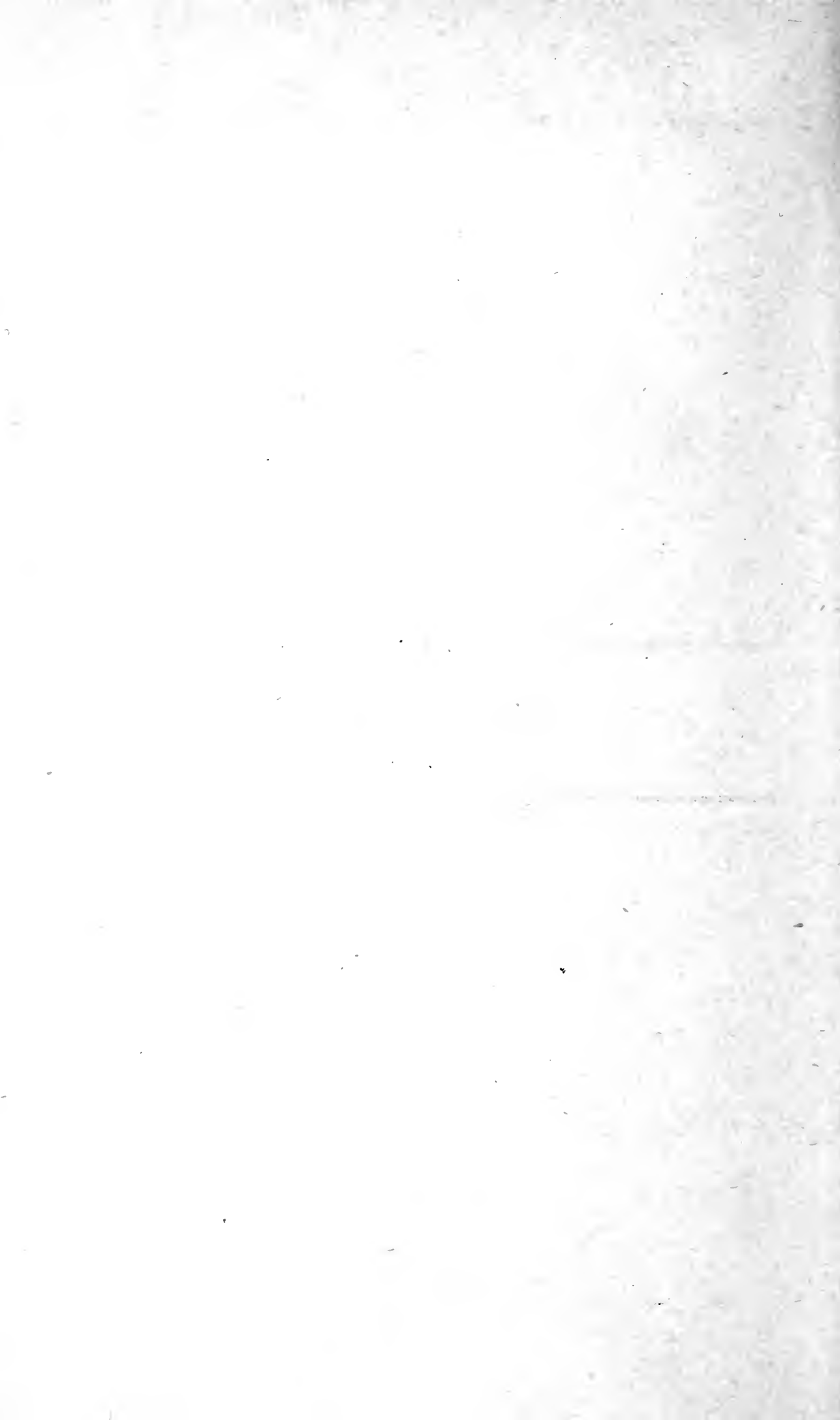
ENGINEERS—*Continued.*

Dennis Chaisson	2nd Class Competency,	Dominion No. 4
Elmer Grant	"	Glac Bay
John O'Brien	"	Reserve Mines
John Gillis	"	Dominion
Daniel A. McIntyre	"	Dominion No. 4
Charles Curry	3rd Class Competency	Broughton Mines
Fred G. Freeman	"	Broughton Mines
Frank Baxendale	"	Sydney Mines
David T Jones	"	"
James W. McGowan	"	"
George W. Payne	"	Port Hawkesbury
Fred F. McInnis	"	Sydney Mines
William H. Boutlier	"	New Aberdeen
Daniel J. McLeod	"	Glac Bay
William Au Coin	"	"
Bernard Currie	"	"
Alexander Dooley	"	Dominion No. 4
George W. Cordy	"	Florence
Colin McNeil	"	Sydney Mines
Harvey Luffman	"	North Sydney
Charles Gardiner	"	"
Harry Kennedy	"	New Aberdeen
Walter Westwood	3rd Class Service	Dominion No. 4
John A. McKinnon	"	Sydney Mines
Sherman Lowther	3rd Class Competency	Amherst
Stephen Tabor	"	Joggins Mines
Alfred Raynor Jowett	"	River Hebert
William Grower	"	"
John Nichols Demet	"	Joggins Mines
John Wakenshaw	"	Stellarton
Henry Conway	"	"
George Smith	"	Westville
Arthur F. Smith	"	Lyon's Brook
Alex. W. Fraser	"	Thorburn
George McNutt	"	Westville
Clement H. Ingraham	"	Inverness
Lewis McIsaac	"	"
Francis X. Cahill	"	"
Clarence P. Davis	"	Up. S. W. Mabou
Raymond Nelson	"	Westville
John Birmingham	"	Sydney Mines

FIREMAN

Thomas O'Brien	Springhill
Hebert Turner	Dominion No. 6
Clayton Silver	"
Alber Reid	New Waterford
Lavers Ripley	Springhill
John B. McEachern	Inverness
Daniel McPherson	"
Donald J. McVicar	Dominion No. 6
Andrew Simmons	Inverness
Tobias Trimlett	Sydney Mines
M. J. McKenzie	Springhill
George Warren	Dominion No. 4 . .

TABLES.



COAL GENERAL STATEMENT, 1914.

	Production.	Sales.	Colliery Consumption, including Locomotives.	Supplied Workmen.
1st. Quarter.....	1,873,854 $\frac{1}{4}$	1,578,370	137,642 $\frac{1}{2}$	33,625
2nd. Quarter.....	1,629,260 $\frac{3}{4}$	959,311 $\frac{3}{4}$	148,058	44,176 $\frac{1}{4}$
3rd. Quarter.....	1,805,986 $\frac{3}{4}$	1,623,886	130,842	24,776 $\frac{1}{4}$
4th. Quarter.....	1,696,362 $\frac{1}{4}$	2,003,032 $\frac{1}{4}$	118,300	17,659
	7,005,464 $\frac{1}{4}$	6,164,600 $\frac{1}{4}$	534,842 $\frac{1}{2}$	120,237

COAL SALES BY COUNTIES, YEAR ENDED SEPTEMBER 30TH, 1914.

	Cape Breton	Pictou	Cumberland	Inverness	Total
Nova Scotia, by land	1,228,507	402,712	120,188	122,866½	1,874,273½
Nova Scotia, by sea	260,466½	14,816	26,043	27,737½	329,063½
Total	1,488,973½	417,528	146,231	150,604½	2,203,336½
New Brunswick	289,562½	79,165	289,538	22,225½	680,491½
Newfoundland	225,501	.....	.....	88	225,589
Prince Edward Island	34,845	46,025	.....	14,911½	95,781½
Quebec	2,285,207½	31,454	38,624	26,297½	2,381,582½
St. Pierre	8,636½	.....	.....	.....	8,636½
United States	277,955	.....	22,670	36½	300,661½
Other Countries	1,171	.....	.....	.....	1,171
Bunker	240,104	.....	2,885	5,801½	248,790½
Time Chartered Boats	15,301	.....	1,117	2,141½	18,559½
Totals	4,867,256½	574,172	501,065	222,106½	6,164,600½

PRODUCTION OF COAL BY COUNTIES.

COUNTY	1913 Tons	1914 Tons	Increase %	Decrease %
Cape Breton.....	5,594,192	5,446,011	.....	2.65
Pictou.....	703,583	677,419	.....	3.7
Cumberland.....	621,864	606,915	.....	2.4
Inverness.....	284,274†	275,119†	.....	3.2
Totals.....	7,203,913†	7,005,464†	.....	2.75

PRODUCTION AND SALES OF COAL BY COMPANIES FOR FISCAL YEAR ENDED SEPTEMBER 30, 1914

NAME OF COMPANY	Output tons	Sales tons	Colliery Consum- ption	Supplied Work- men	On bank at close of year, tons	Difference on bank compared with 1913.	
						Increase	Decrease
Dominion Coal Co.....	4,551,419	4,073,988	290,997½	54,391½	87,765	17,136	.....
Nova Scotia Steel & Coal Co.....	794,877	711,622½	48,317½	23,408	39,638½	11,528½	.....
Cumberland Railway & Coal Co...	400,736	323,008	60,187	10,597	9,232	6,944	.....
Acadia Coal Co.....	456,490	395,750	47,961	11,678	2,801	1,101	.....
Maritime Coal, R'y & Power Co....	143,193	127,392	11,812	2,839	1,150	1,150	.....
Inverness Railway & Coal Co.....	275,119½	222,106½	28,411½	6,590½	2,721½	1,536	.....
Intercolonial Coal Co.....	220,929	179,003	26,271	7,223	9,197	8,432	.....
Sydney Coal Co.....	5,201	4,949	133	158	20	.....	39
Colonial Coal Co.....	56,774	50,779	5,054	941	.....	.....	.....
Minudie Coal Co.....	62,127	49,658	8,319	1,902	1,050	1,050	.....
Atlantic Grindstone & Coal Co.....	859	788	51	70	.....	.....	50
Cape Breton Coal, Iron & R'y Co...	37,740	25,556	7,328	439	5,881	4,417	.....
Totals.....	7,005,464½	6,164,600½	534,842½	120,237	159,455½	53,294½	89

Number and Classes of Workmen Employed at the Coal Mines of Nova Scotia, Year Ended September 30th, 1914.

	UNDERGROUND				SURFACE				CONSTRUCTION			TOTALS		HORSES	
	Skilled Workmen	Laborers	Boys	Days	Skilled Workmen	Laborers	Boys	Days	Skilled Workmen	Laborers	Days	Persons	Days	Above	Below
Dominion Coal Co.	3,552	2,102	273	1,528,469	638	398	70	283,520				7,033	1,811,989	79	443
Nova Scotia Steel & Coal Co.	1,069	959	260	616,270	161	246	29	129,114				2,724	745,384	3	72
Cumberland Railway & Coal Co.	486	298	52	240,577	83	99	14	56,299	4	4	634	1,040	297,510	10	48
Acadia Coal Co.	461	468	58	234,516	88	233	18	94,764				1,326	329,280	22	49
Intercolonial Coal Co.	368	140	56	144,442	69	97	24	51,340	4	4	1,818	762	197,600	12	25
Joggins.	315	70	4	90,364	24	44	4	19,584	5	2	1,284	468	111,232	5	9
Chignecto.	50	7	3	5,980	4	7	3	1,810				74	7,790	1	1
Inverness Railway & Coal Co.	316	164	25	133,071	49	70	16	35,421				640	168,492	7	39
Sydney Coal Co.	8	4		2,715	2	2		1,202				16	3,917	1	2
Minudie Coal Co.	148	24	16	41,423	34	26	10	18,784	4	1	872	263	61,079	4	3
Colonial Coal Co.	76	24		26,720	20	17		9,274				137	35,994	3	18
Fundy.	4	1		988	1		1	592				7	1,580		
Cape Breton Coal Iron & Ry. Co.	45	31		25,727	16	40		17,171	11	5	5,041	148	47,939	6	3
Total	6,898	4,292	747	3,091,262	1,189	1,279	189	718,875	28	16	9,649	14,638	3,918,786	153	712

COAL.

NOVA SCOTIA EXPORTED TO THE UNITED STATES:

Years.	Tons.	Duty	Years.	Tons.	Duty
1850	118,173	24 ad.	1879	51,641	.75
1851	116,274	"	1880	123,423	"
1852	87,542	"	1881	113,728	"
1853	120,764	"	1882	99,302	"
1854	139,125	Free	1883	102,755	"
1855	103,222	"	1884	64,515	"
1856	126,152	"	1885	34,483	"
1857	123,335	"	1886	66,003	"
1858	186,743	"	1887	73,892	"
1859	122,720	"	1888	30,198	"
1860	149,289	"	1889	29,987	"
1861	204,457	"	1890	50,854	"
1862	192,612	"	1891	25,431	"
1863	282,775	"	1892	13,883	"
1864	347,594	"	1893	16,099	"
1865	465,194	"	*1894	79,837	.40
1866	404,252	"	†1895	73,097	"
1867	338,492	\$1.25	†1896	174,919	"
1868	228,132	"	||1897	106,279	.67
1869	257,485	"	1898	98,027	"
1870	168,180	"	1899	153,188	"
1871	165,431	"	1900	624,273	"
1872	154,092	.75	1901	591,086	"
1873	254,760	"	1902	751,382	"
1874	138,336	"	1903	968,832	"
1875	89,746	"	1904	713,170	"
1876	71,634	"	1905	652,538	"
1877	118,216	"	1906	769,775	"
1878	88,495	"	1907	616,312	"
			1908	499,634	"
			1909	324,786½	"
			1910	290,668	"
			1911	332,301	"
			1912	412,531	"
			1913	468,000	"
			1914	300,661½	Free

Note—The quantities given for the years 1852 to 1872 are on the authority of the Board of Trade, Philadelphia, and are probably underestimated.

*Nine months only.

†*Note*—After August 1st., 1894, duty on Round Coal, 40 cents, on Culm and Slack, 15 cents.

‡Fiscal year begins Oct. 1st., and ends Sept. 30th., (Chap. 4, Acts 1893).

||On July 24th, 1897, the duty was made 67 cents.

On October 3rd., 1913, duty was removed.

MINES REPORT.

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(NOVA SCOTIA COAL SALES 1785 TO 1914 INCLUSIVE)

Year.	Sales.	Total.	Year.	Sales.	Total.
1785	1,668	14,349	1851	153,499	2,399,829
1786	2,000		1852	189,076	
1787	10,681		1853	217,426	
1788			1854	234,312	
1789			1855	238,215	
1790			1856	253,492	
1791	2,670		1857	294,198	
1792	2,143	1858	226,725		
1793	1,926	1859	270,293		
1794	4,405	1860	322,593		
1795	5,320	51,048	1861	326,429	
1796	5,249		1862	395,637	
1797	6,039		1863	429,351	
1798	5,948		1864	576,935	
1799	8,947		1865	635,586	
1800	8,400		1866	558,520	
1801	5,775		1867	471,185	
1802	7,769		1868	453,624	
1803	6,601		1869	511,795	
1804	5,976		1870	568,277	
1805	10,130	70,452	1871	596,418	
1806	4,938		1872	785,914	
1807	5,119		1873	881,106	
1808	6,616		1874	749,127	
1809	8,919		1875	706,795	
1810	8,609		1876	634,207	
1811	8,516		1877	687,065	
1812	9,570		1878	693,511	
1813	9,744		1879	688,624	
1814	9,866		1880	954,659	
1815	9,336	91,527	1881	1,035,014	
1816	8,619		1882	1,250,179	
1817	9,284		1883	1,297,523	
1818	7,920		1884	1,261,650	
1819	8,692		1885	1,254,510	
1820	9,980		1886	1,373,666	
1821	11,388		1887	1,519,684	
1822	7,512		1888	1,576,692	
1823	27,000		1889	1,555,107	
1824			1890	1,786,111	
1825		140,820	1891	1,849,945	
1826	1892		1,752,934		
1827	1893		1,485,924		
1828	1894		2,019,742		
1829	1895		1,831,357		
1830	1896		2,047,133		
1831	37,170		1897	2,013,421	
1832	50,396		1898	2,135,397	
1833	64,743		1899	2,419,137	
1834	50,813		1900	2,997,546	
1835	56,434	839,981	1901	3,119,335	
1836	107,593		1902	3,898,626	
1837	118,942		1903	4,621,074	
1838	106,730		1904	4,544,609	
1839	145,962		1905	4,475,284	
1840	101,198		1906	5,194,590	
1841	148,298		1907	5,046,690	
1842	129,708		1908	5,485,583	
1843	105,161		1909	4,615,713	
1844	108,482		1910	4,896,896	
1845	150,674	45,898,410	1911	5,556,464	
1846	147,506		1912	6,177,615	
1847	201,605		1913	6,478,709	
1848	187,643		1914	6,164,600	
1849	174,592				
1850	180,084	1,533,798			

GOLD—General Annual Statement.

YEAR	Material Crushed Tons	Total Gold Extracted		
		Oz.	Dwt.	Gr.
1862.....	6473	7275	0	0
1863.....	17002	14001	14	17
1864.....	21434	20032	18	13
1865.....	24423	25454	4	8
1866.....	32162	25204	13	2
1867.....	31386	27314	11	11
1868.....	32262	20541	6	10
1869.....	35147	17868	0	19
1870.....	30829	19866	5	5
1871.....	30791	19227	7	4
1872.....	17093	13094	17	6
1873.....	17708	11852	7	19
1874.....	13844	9140	13	9
1875.....	14810	11208	14	19
1876.....	15490	12038	13	18
1877.....	17369	16882	6	1
1878.....	17990	12577	1	22
1879.....	15936	13801	8	10
1880.....	14037	13234	0	4
1881.....	15556	10756	3	2
1882.....	12081	14107	13	20
1883.....	25954	15446	9	23
1884.....	25147	16059	8	17
1885.....	28890	22202	12	20
1886.....	29010	23362	15	13
1887.....	22280	21211	7	18
1888.....	36178	22407	13	10
1889.....	39160	26155	6	13
1890.....	42749	24358	9	9
1891.....	35212	23391	0	0
1892.....	33633	21080	3	18
*1893.....	28040	14030	5	7
1894.....	39333	14980	7	13
1895.....	58082	22112	7	21
1896.....	65873	25596	14	6
1897.....	76559	26579	19	21
1898.....	86331	31104	17	0
1899.....	104122	27772	12	3
1900.....	65744	30399	4	14
1901.....	87992	30537	14	0
1902.....	192076	28279	5	13
1903.....	92645	25198	4	18
1904.....	62616	14279	8	14
**1905.....	72252	16782	11	5
**1906.....	65278	14079	13	23
**1907.....	66060	15007	5	8
**1908.....	59797	11991	0	0
1909.....	59058	12597	12	13
**1910.....	49558	10675	13	16
**1911.....	18319	8389	12	4
1912.....	15868	4948	19	20
1913.....	7324	2364	12	22
1914.....	13156	3158	4	10
	2138119	942022	7	11

*Nine months only.

**Including Gold from Stibnite ore shipped from West Gore.

PRODUCTION OF GOLD FROM 1862 TO 1914

DISTRICT	Tons Crushed.	Total yield of Gold			Av. yield of Gold			Value at \$19 the oz.
		Oz.	dwt.	grs.	oz.	dwt.	grs.	
* Caribou and Moose River	222,233	61,319	11	14	...	5	12	1,165,072
Montagu	29,740	42,232	12	8	1	8	10	802,420
Oldham	59,348	67,687	18	22	1	2	19	1,286,071
Renfrew	61,795	48,699	7	19	...	15	18	925,288
Sherbrooke	307,019	153,985	15	4	...	10	1	2,925,729
Stormont	527,514	121,265	18	13	...	4	14	2,304,053
Tangier	67,428	28,965	8	12	...	8	14	550,343
†Uniacke	63,351	43,983	1	17	...	13	21	835,679
Waverley	155,520	69,980	10	16	...	9	0	1,329,630
||Brookfield	93,527	38,709	2	2	...	8	7	735,473
†Salmon River	118,819	41,852	5	20	...	7	1	795,193
xWhiteburn	6,907	9,800	0	2	1	8	9	186,200
Lake Catcha.	31,928	28,209	14	17	...	17	16	535,985
†Rawdon	12,189	9,606	5	10	...	15	18	182,519
Wine Harbour	77,396	34,992	15	11	...	9	1	664,863
**Fifteen Mile Stream	36,878	17,363	0	5	...	9	10	329,897
Malaga Barrens	22,926	20,305	12	6	...	17	17	385,807
\$West Gore (from Stibnite Ore)	3,240	4,512	15	10	1	7	20	85,743
Other Districts	145,836	75,670	2	5	...	10	9	1,437,846
Totals	2,043,594	919,147	18	21	...	9	0	\$17,463,811

*from 1869; †From 1868; ‡From 1883; ||From 1887; xFrom 1882; †From 1887; **From 1883; §From 1905.

GENERAL GOLD STATEMENT, YEAR ENDED SEPTEMBER 30TH, 1914.

DISTRICT	Tons Crushed	Total yield of Gold			Avg. yield of Gold.		
		oz.	dwt.	grs.	oz.	dwt.	grs.
Caribou.....	789	483	10	2	.....	12	6
Caribou (Moose River).....	405	94	13	0	.....	4	16
Fifteen Mile Brook.....	120	44	15	18	.....	7	11
Lake Catcha.....	1,106	387	13	23	.....	7	0
Miller's Lake.....	6	1	6	0	.....	4	8
Montagu.....	118	40	12	23	.....	6	21
Oldham.....	358	182	10	0	.....	10	5
Stormont.....	2,257	707	14	0	.....	6	7
Sherbrooke.....	6,806	895	14	0	.....	2	15
Tangier.....	416	56	17	3	.....	2	18
Wagamatkook.....	775	262	17	13	.....	6	19
Totals.....	13,156	3,158	4	10	.....	4	19

REPRODUCED BY THE
GOVERNMENT OF CANADA

MONTHLY STATEMENT FOR EACH GOLD DISTRICT.

MONTH	Caribou					Caribou (Moose River)						
	No of Mines	Tons Crushed	Yield of Gold.			No of Mines	Tons Crushed	Yield of Gold				
			oz.	dwt.	grs.			oz.	dwt.	grs.		
1913.												
October.....	No	Clean	up	1	0	1	33	11	0	0	0	0
November.....	1	57	48			No	Crushing					
December.....	No	Clean	up			1	5	2	5	0	0	0
1914												
January.....	1	108	101	15	1	No	Crushing					
February.....	1	93	49	9	1	2	79	9	1	0	0	0
March.....	No	Clean	up			2	110	16	12	0	0	0
April.....	1	172	76	6	0	1	110	31	0	0	0	0
May.....	1	74	31	2	0	No	Crushing					
June.....	2	101	55	15	0	No	Crushing					
July.....	2	92	72	4	0	1	60	21	0	0	0	0
August.....	2	50	17	6	0	1	8	3	15	0	0	0
September.....	2	42	31	12	0	No	Crushing					
Totals.....		789	483	10	2		405	94	13		0	0

MONTHLY STATEMENT FOR EACH GOLD DISTRICT.

MONTH	Lake Catcha					Montagu					
	No of Mines	Tons Crushed	Yield of Gold			No. of Mines	Tons Crushed	Yield of Gold			
			oz.	dwt.	grs.			oz.	dwt.	grs.	
1913											
October.....	No	Crushing				No	Crushing	No	Crushing		
November.....	1	310	65	6	17	"	"	"	"		
December.....	1	300	75	6	12						
1914											
January.....	1	300	86	14	18						
February.....	1	11	22	5	18						
March.....	No	Crushing									
April.....	No	Crushing									
May.....	No	Crushing				1	100	9	6	0	
June.....	1	26	10	7	12	No	No Cru shing				
July.....	1	54	48	18	0						
August.....	1	55	40	6	18	1	10	15	17	9	
September.....	1	50	38	8	0	1	8	15	9	14	
Totals.....		1106	387	13	23		118	40	12	23	

MONTHLY STATEMENT FOR EACH GOLD DISTRICT.

MONTH	Tangier					Oldham			
	No of Mines	Tons Crushed	Yield of Gold			No. of Mines	Tons Crushed	Yield of Gold	
			oz.	dwt.	grs.			oz.	dwt. grs.
1913.									
October.....	No	Crushing				2	13	4	13 0
November.....	"	"				1	60	41	15 0
December.....	"	"				3	49	35	7 0
1914.									
January.....	"	"					No Crushing		
February.....	"	"					"		
March.....	"	"					"		
April.....	"	"				2	115	47	5 0
May.....	No	Clean	up				No Crushing		
June.....	1	216	32	5	3	6	72	32	11 0
July.....	1	200	24	12	0	1	20	7	0 0
August.....	No	Crushing				2	9	1	17 0
September.....	"	"				3	20	12	2 0
Totals.....		416	56	17	3		358	182	10 0

MONTHLY STATEMENT FOR EACH GOLD DISTRICT.

MONTH	Stormont						Sherbrooke				
	No of Mines	Tons Crushed	Yield of Gold				No. of Mines	Tons Crushed	Yield of Gold		
			oz.	dwt.	grs.				oz.	dwt.	grs.
1913.	No	Crushing						No	Crushing		
October.....	"	"					1	400	69	10	0
November.....											
December.....											
1914.											
January.....	1	300	99	0	0		1	1020	199	0	0
February.....	1	325	126	0	0		1	1080	184	0	0
March.....	No	Crushing					1	1200	172	0	0
April.....	1	340	131	0	0		1	900	112	13	0
May.....	1	275	62	0	0		1	1000	71	0	0
June.....	1	250	53	0	0			No	Crushing		
July.....	1	120	42	10	0		1	833	45	0	0
August.....	1	172	65	0	0		1	373	29	9	0
September.....	2	475	129	4	0		Sweepings		13	2	0
Totals.....		2257	707	14	0			6806	895	14	0

MONTHLY STATEMENT FOR EACH GOLD DISTRICT.

MONTH	*Wagamatkook				Fifteen Mile Brook				Miller's Lake			
	No. of Mines	Tons Crush	Yield of Gold		No. of Mines	Tons Crush	Yield of Gold		No. of Mines	Tons Crush	Yield of Gold	
			oz.	dwt. grs.			oz.	dwt. grs.			oz.	dwt. grs.
1913.												
October.....	1	95	24	19	No	Crush	ing		1	6	1	6
November.....	No	Crush	ing		1	20	10	14	No	Crush	ing	0
December.....	1	140	50	1	No	Crush	ing					
1914.												
January.....	1	174	15	12	"	"			"	"		
February.....	No	Crush	ing		"	"			"	"		
March.....	1	134	64	15	"	"			"	"		
April.....	1	110	76	7	"	"			"	"		
May.....	1	122	25	3	1	100	34	4	"	"		
June.....	No	Crush	ing		No	Crush	ing		"	"		
July.....	"	"			"	"			"	"		
August.....	No	Clean	up		"	"			"	"		
September.....												
Totals.....		775	262	17		120	44	15		6	1	6
				13				18				0

*Silver 18 oz., 11 dwt., 20 grs.

